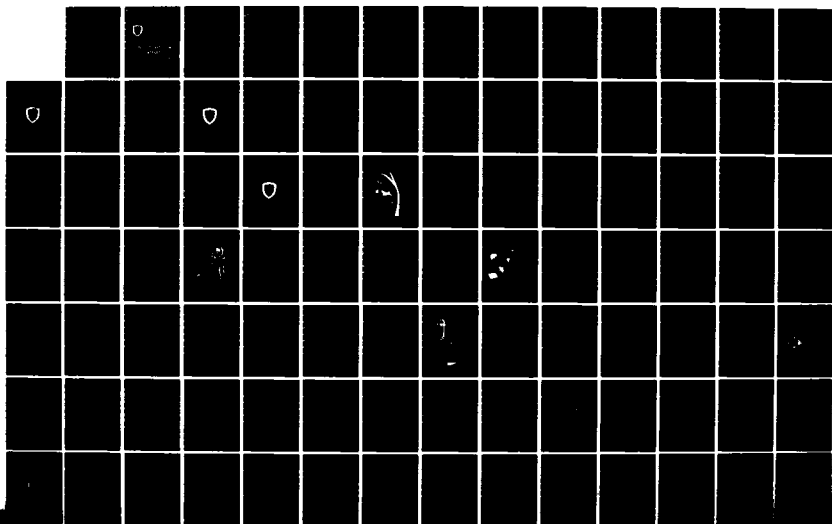


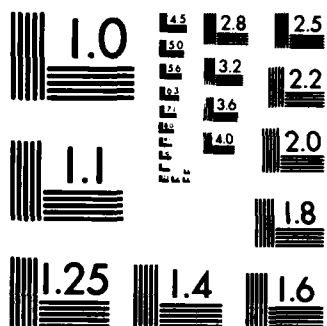
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U.S. ARMY (2) NY-2 100000
MATERIEL DEVELOPMENT
AND READINESS COMMAND



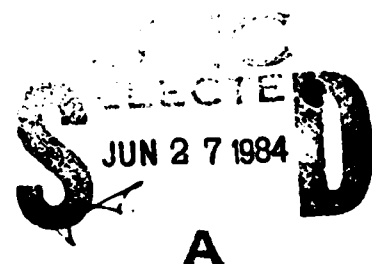
MANUFACTURING
METHODS &
TECHNOLOGY

AD-A142 723

**PROJECT EXECUTION
REPORT**

DT

SECOND CY83



PREPARED BY

MAY 1984

USA INDUSTRIAL BASE ENGINEERING ACTIVITY

MANUFACTURING TECHNOLOGY DIVISION

ROCK ISLAND, ILLINOIS 61299

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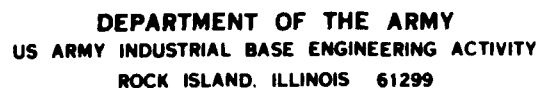
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| 20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This document is a summary compilation of the Manufacturing Methods and Technology Program Project Status Reports (RCS DRCMT-301) submitted to IBEA from DARCOM major Army subcommands and project managers. Each page of the computerized section lists project number, title, status, funding, and projected completion date. Summary pages give information relating to the overall DARCOM program. | | |

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REPLY TO
ATTENTION OF

DRXIB-MT

15 MAY 1984

SUBJECT: Manufacturing Methods and Technology (MMT) Program Project
Execution Report, Second Half CY83

SEE DISTRIBUTION

1. Reference AR 700-90, paragraph 3-4j(1), 15 Mar 82, subject: Logistics, Army Industrial Preparedness Program.
2. The Project Execution Report is a summary compilation of the MMT Project Status Reports (RCS DRCMT-301) submitted to IBEA from DARCOM Major Army Subcommands (SUBMACOM) and project managers. This document is used as a management tool for monitoring trends of the MMT Program and includes a discussion of the overall DARCOM Program. There are separate sections in the report showing projects that are new, active, and completed.
3. The submission of status reports is required by AR 700-90 to be made to IBEA within 2-1/2 months after the reporting period. For this document, that date was 15 Mar 84. Due to the peak workload conditions resulting from the transfer of the MMT program to the R&D account and the preparation required for the R&D annual reviews, the deadline was extended to 4 Apr 84. While the extension resulted in reducing delinquencies from 12% to 4%, it also delayed the publication.
4. Persons who are interested in the details of an individual project should contact the Manufacturing Technology representative at the SUBMACOM. A list of those representatives is included in Appendix IV to this report. The Project Officer for this task is Cecilia Fuller, AUTOVON 793-6521.

FOR THE DIRECTOR:

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James W. Carstens
JAMES W. CARSTENS

Chief, Manufacturing Technology Division



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DISCUSSION

Background

The Army Manufacturing Methods and Technology (MMT) Program was established in 1964 as a part of the Army Production Base Support (PBS) Program. The MMT Program has goals of improving existing manufacturing technology, translating new technology into production line processes, and supporting the modernization and expansion of the military hardware production base. The program is governed by the provisions of AR 700-90, Chapter 3.

Composition of the Report

This MMT Project Execution Report provides the status summaries of 383 active projects which have a total authorized cost of \$213.6 million. Total MMT program statistics, as well as the summaries of the active projects are also included. The report is compiled, edited, and published for HQ, DARCOM by the Manufacturing Technology Division of the Army Industrial Base Engineering Activity (IBEA) in accordance with AR 700-90, paragraph 3-4j(1).

Distribution of this report is extended to Army materiel developers and users and to counterparts in the Navy and the Air Force. Inquiries on the detailed technical aspects of any individual project may be answered by the MMT Program representative of the action command under which the project was completed or is being executed. Inquiries or suggestions concerning this report or other facets of the MMT Program may also be directed to the Manufacturing Technology Division of IBEA.

The report is composed of three major sections:

- a. Projects Added 2nd Half, CY83 - A list divided by organization of all projects funded during the second half of CY83. Included is a narrative of the problem for each project.
- b. Final Status Reports Received During 2nd Half, CY83 - A list divided by organization of all projects for which final status reports were received during the second half of CY83. Included is a narrative of the final status for each project.
- c. Summary Project Status Report - These reports are divided by organization and include a summary of funding by fiscal year and a narrative status of the work accomplished during the six month period for each active project.

Status Report Submissions

There are two areas which have been of concern in the past: (1) delinquent status reports, and (2) final status reports without technical reports. Figure 1 summarizes by Command these two situations.

STATUS REPORT (RCS DRCMT 301) SUBMISSIONS

| COMMAND | *301 REPORTS REQUIRED | *301 REPORTS SUBMITTED | NUMBER AND (%) OF DELINQUENT 301 REPORTS | | NUMBER OF FINAL 301 REPORTS | NUMBER OF TECH RPTS SUBMITTED W/FINAL STATUS REPORTS | NUMBER AND (%) OF DELINQUENT TECHNICAL REPORTS | |
|------------------|-----------------------------|------------------------------|--|------|-----------------------------------|---|---|------|
| AMETA | 7 | 7 | 0 | 0% | 0 | 0 | 0 | 0% |
| DESCOM | 11 | 10 | 1 | 9% | 2 | 0 | 2 | 100% |
| ERADCOM | 37 | 34 | 3 | 8% | 2 | 0 | 2 | 100% |
| TMDE | 4 | 4 | 0 | 0% | 1 | N/A | N/A | |
| AMMRC | 5 | 5 | 0 | 0% | 1 | N/A | N/A | |
| TECOM | 3 | 3 | 0 | 0% | 0 | 0 | 0 | 0% |
| AVSCOM | 44 | 44 | 0 | 0% | 11 | 4 | 7 | 64% |
| CECOM | 11 | 11 | 0 | 0% | 0 | 0 | 0 | 0% |
| MICOM | 29 | 27 | 2 | 7% | 5 | 3 | 2 | 40% |
| TACOM | 59 | 59 | 0 | 0% | 6 | 3 | 3 | 50% |
| AMCCOM (AMMO) | 130 | 119 | 11 | 8% | 19 | 11 | 8 | 42% |
| AMCCOM (WPNS) | 99 | 99 | 0 | 0% | 13 | 8 | 5 | 38% |
| TROSCOM | 9 | 9 | 0 | 0% | 5 | 4 | 1 | 20% |
| TOTAL | 448 | 431 | 17 | 4%** | 65 | 33 | 30 | 46% |

FIGURE 1

* Does not include FY84 projects which were recently funded and which did not require a status report.

** Delinquency rate reflects a 3 week extension of the cutoff date. Actual delinquency as of the regular cutoff date was 52 reports or 12%.

According to this figure, there was only a 4% delinquency in receipt of 301 status reports or 17 reports not submitted by the cutoff date. This appears to be an improvement over the 5% delinquency from last reporting period and the 8% delinquency from the period a year ago. This improvement in delinquency is due to the fact that the deadline (already 2-1/2 months from the end of the period, 31 Dec) was extended to 4 Apr 84. The extension was necessary because of last minute congressional action which redirected the MMT Program from the Procurement Account to the R&D account requiring that twice as much clerical and computer work be accomplished in a 3 month shorter period of time. Specifically, preparation for the 1984 MMT Budget Reviews, held during March, conflicted with the peak workloads for the Execution Report. The actual delinquency was 12% or 52 reports, a significant decrease from the 33% delinquency as of the regular cutoff date for last period, and slightly higher than the 8% delinquency a year ago.

Accuracy of MMT summary information for management depends on a complete submission of all the project status reports for each Command. Any delinquency creates a void in the information presented in the compiled report. Therefore, steps are taken to remind the Commands of the submission of these reports. In December 1983, a call letter was mailed out to each SUBMACOM. Enclosed with this letter was a computerized listing of the projects for which a status report was required for this reporting period. Also, phone calls were made on March 1st to those commands whose submission had not yet been received. Even with the reminders, the general trend has been that more and more of the reports are submitted later and later; during 12-15 March, 47% of the status reports were received. Even though the two reports prior to this one have shown less delinquencies (8% and 5%), this has mainly been as a result of the revised AR 700-90 giving the Commands an extended 2-1/2 months from the end of the reporting period to submit their status reports. Delinquency and timeliness are areas that must be improved in order to insure a useful review of the progression of the MMT Program.

Relative to the second area of concern, there has always been a requirement that a technical report be prepared for each project. The technical report is an accepted vehicle, and in some cases the only vehicle, for true technology transfer and its importance cannot be overstated. In May 1981, a letter from the Directorate of Manufacturing Technology reinforced the requirement for technical reports. Of the 78 final status reports submitted during the previous reporting period, 42 of them, or 54% did not have technical reports included. For this period, as noted in Figure 1, 65 final status reports were received with 30 of them, or 46% being delinquent the technical report. The percentage of delinquency has improved very little. Greater strides will have to be made if true technology transfer is expected to occur. The 65 projects for which final status reports were received during this period can be found in a separate section on page 12 where the final work status is given for each project.

Program Summary

Manufacturing Methods and Technology (MMT) projects and efforts are major elements of the Army's Manufacturing Technology (MANTECH) Program. AR 700-90 succinctly describes the MANTECH objective as the improvement of the industrial readiness and efficiency of the production base for Army materiel. Further defined objectives are stated in the Statement of Principles for the DOD Manufacturing Technology Program. This Statement, originating at the Deputy Under Secretary of Defense level, not only establishes ground rules for the Program but highlights the level of emphasis that the Program receives.

To attain the objectives described in the Statement of Principles, the Army, prior to FY83, funded discrete work units called "Projects" on a yearly basis. These projects, identified by a seven-digit number, contained work requests, which upon completion would result in an end product whose technical transfer could be effected. At times, in order to have a total work package which was implementable, (i.e., which could achieve the payback for which the work was funded) the scope was of such a magnitude that total funding in one fiscal year could be an inefficient use of resources.

In this event, the total work was multi-year funded, (i.e., be more than one project, each having a technically transferrable end product). These total implementable work units were called "Efforts". These efforts could consist of many projects or just be one project, depending on the amount of work required to achieve the implementable technical goal. Efforts are identified by a four-digit number which is the same as the last four digits of a project or projects which make up the effort.

For FY83 and FY84 the conversion from the Procurement Account to the R&D account will result in some administrative changes. An MMT "project" will, under R&D parlance, be considered a "task". Also, to accommodate the R&D obligational goals, these yearly funded tasks will likely become level of effort work rather than discrete, stand alone work units which result in end products whose technical transfer could be effected. Multi-year funding will probably become more prevalent in leading to the completion of an implementable work "effort".

Due to these changes, it is likely that MMT reporting procedures will change in the future.

The following three charts (Figures 2-4) summarize MMT project reporting and funding status for the 2nd Half of CY83. These summaries include data from the major Army subcommands (SUBMACOM) that have active projects and the AMMRC and AMETA sponsored projects. Cumulative figures pertaining to project distribution and expenditures of funds on contract and in-house are provided. Projects that were closed out during the

reporting period are not included in the data used for these summaries. On the following three charts, comparisons are made between parallel reporting periods (2nd half, CY82 and 2nd half, CY83) in order to observe the project number and funding changes that occur within each Command and within the total program.

A summary of the MMT Program (Figure 2) indicates that the number of projects has dropped by 15% and the funds have decreased by 17% in comparison to the 2nd half of CY82. This significant decrease is due to two reasons: 1) since the FY84 projects were funded late (after January 1984), the FY84 program is not included in the figure, and 2) in FY83 the MMT program took a severe cut from \$80+ million to \$39 million.

MMT PROGRAM SUMMARY

| Organization | Number of Projects | | | Funding Status | | Percent Change |
|------------------|--------------------|---------------|----------------|----------------|---------------|----------------|
| | 2nd Half CY82 | 2nd Half CY83 | Percent Change | 2nd Half CY82 | 2nd Half CY83 | |
| AMETA/DESCOM | 14 | 16 | 14 | \$ 5,474,000 | \$ 5,818,000 | 6 |
| ERADCOM | 41 | 35 | -15 | 29,561,900 | 21,653,000 | -27 |
| TMDE | 4 | 3 | -25 | 1,858,000 | 1,446,000 | -22 |
| AMMRC | 6 | 4 | -33 | 13,495,300 | 14,488,700 | 7 |
| TECOM | 2 | 3 | 50 | 1,494,000 | 1,934,000 | 29 |
| AVSCOM | 47 | 33 | -30 | 28,029,200 | 25,038,900 | -11 |
| CECOM | 9 | 11 | 22 | 7,684,900 | 9,222,800 | 20 |
| MICOM | 31 | 24 | -23 | 20,405,100 | 12,645,000 | -38 |
| TACOM | 59 | 53 | -10 | 26,669,900 | 31,134,000 | 17 |
| AMCCOM (Ammo) | 133 | 111 | -17 | 97,794,600 | 65,513,000 | -33 |
| AMCCOM (Weapons) | 88 | 86 | -2 | 21,670,500 | 23,022,600 | 6 |
| TROSCOM | 14 | 4 | -71 | 4,450,500 | 1,887,000 | -58 |
| TOTAL | 448 | 383 | -15 | \$258,587,900 | \$213,803,000 | -17 |

FIGURE 2

It can be noted that the largest decrease in number of projects was AMCCOM (Ammo) while the largest decrease percentagewise was TROSCOM. TROSCOM's large decrease is attributed to the close-out of all the NLAB projects last period and also due to the 5 BRDC projects that were closed out this period. Dollarwise the largest decrease was AMCCOM (Ammo) with \$32.3 million. All increases were relatively small, except for TACOM which increased \$4.5 million.

A breakout of the active projects by fiscal year is shown in Figure 3. Over the past few years there has been a continued emphasis on closing out older projects. Currently, data is provided to DARCOM every

ACTIVE PROJECTS BY FISCAL YEAR

| ORGANIZATION | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | TOTAL |
|------------------|----|----|----|----|----|----|----|----|-----|-------|
| AMETA/DESCOM | | | 1 | 1 | 1 | 1 | 2 | 7 | 3 | 16 |
| ERADCOM | | 1 | | 1 | 2 | 3 | 5 | 5 | 8 | 35 |
| TMDE | | | | | | 1 | | 1 | 1 | 3 |
| AMMRC | | | | | | 1 | 1 | 1 | 1 | 4 |
| TECOM | | | | | | | 1 | 1 | 1 | 3 |
| AVSCOM | | | | | | | 8 | 19 | 6 | 33 |
| CECOM | | | | 1 | 1 | 1 | 4 | 2 | 2 | 11 |
| MI COM | | | | | 1 | 1 | 5 | 10 | 7 | 24 |
| TACOM | | | 1 | 1 | 2 | 2 | 12 | 20 | 15 | 53 |
| AMCCOM (AMMO) | | | 1 | 1 | 7 | 11 | 24 | 40 | 27 | 111 |
| AMCCOM (WEAPONS) | | 1 | 2 | | 2 | 10 | 16 | 39 | 16 | 86 |
| TROSCOM | | | | | 1 | | 1 | 2 | | 4 |
| TOTAL | | 2 | 1 | 5 | 6 | 18 | 33 | 79 | 150 | 383 |

| | | | | | | | | | | | |
|-------------------|---|---|---|----|----|----|----|-----|-----|---|-----|
| 2ND CY82 TOTAL | 1 | 4 | 3 | 11 | 19 | 41 | 68 | 125 | 172 | 0 | 444 |
|-------------------|---|---|---|----|----|----|----|-----|-----|---|-----|

FIGURE 3

quarter listing the active projects funded in FY79 and prior to monitor for completion. The success of this DARCOM follow-up is shown by comparing the fiscal years 75-79 for the 2nd half CY82 with the current period. A year ago, there were 79 active projects for these fiscal years. There are only 32 projects for these years reported during the 2nd half CY83. This is a 68% reduction in older projects. In addition the active FY80 projects were reduced by 51% during the same period.

Figure 4 indicates at what rate the project funds are being expended and by whom. Over the past three years, the active MMT program has shown

PROGRAM FUNDING EXPENDITURES
(MILLIONS)

| ORGANIZATION | NO OF PROJECTS | AUTHORIZED FUNDING | ACTUAL CONTRACTS* | | | REMAINING* | | |
|-------------------|-------------------|-----------------------|-------------------|----------|--------|---|----------|--------|
| | | | AMOUNT | EXPENDED | | (IN-HOUSE + PLANNED CONTRACT) AMOUNT | EXPENDED | |
| AMETA/DESCOM | 16 | \$ 5.8 | \$ 3.5 | \$ 2.4 | (67%) | \$ 2.3 | \$ 0.5 | (22%) |
| ERADCOM | 35 | 21.7 | 18.3 | 12.2 | (66%) | 3.4 | 1.7 | (50%) |
| TMDE | 3 | 1.4 | 0.7 | 0.7 | (96%) | 0.7 | 0.5 | (79%) |
| AMMRC | 4 | 14.5 | 5.7 | 3.3 | (57%) | 8.8 | 8.2 | (93%) |
| TECOM | 3 | 1.9 | 0 | 0 | (0%) | 1.9 | 1.8 | (95%) |
| AVSCOM | 33 | 25.0 | 20.7 | 12.6 | (60%) | 4.3 | 2.3 | (53%) |
| CECOM | 11 | 9.2 | 8.3 | 4.5 | (54%) | 0.9 | 0.5 | (64%) |
| MICOM | 24 | 12.6 | 9.0 | 7.7 | (84%) | 3.6 | 1.8 | (50%) |
| TACOM | 53 | 31.1 | 18.9 | 11.6 | (61%) | 12.2 | 8.3 | (67%) |
| AMCCOM (AMMO) | 111 | 65.5 | 39.5 | 26.9 | (68%) | 26.0 | 14.0 | (53%) |
| AMCCOM (WEAPONS) | 86 | 23.0 | 9.1 | 5.3 | (58%) | 13.9 | 6.0 | (42%) |
| TROSCOM | 4 | 1.9 | 1.6 | 1.5 | (96%) | 0.3 | 0.2 | (75%) |
| TOTAL | 383 | \$ 213.6 | \$ 135.3 | \$ 88.7 | (65%) | \$ 78.3 | \$ 45.8 | (58%) |
| 2ND CY82 TOTAL | 444 | \$ 256.9 | \$ 162.0 | \$ 94.5 | (58%) | \$ 94.3 | \$ 45.3 | (48%) |

FIGURE 4

* All figures rounded to one decimal place.

an increasing contractor participation. The data from this period supports the continued greater degree of contractor involvement. For the 2nd half of CY82, the contractor and in-house figures were \$162 million vs. \$94 million, or 63.1% contractor involvement. For the 2nd half of CY83, these same respective values are \$135 million vs. \$78 million, or 63.5% contractor involvement. This is in part due to the extended cutoff date which resulted in less apparent delinquencies, which in turn resulted in more projects having funds cited on contract than that which was true during the comparison report period. Figure 4 shows that compared to the same period last year, contractor expenditures have risen to 65%, and in-house expenditures have also risen (48% vs. 58%). Again these improved figures can be related to the inclusion of more current data which resulted from less report delinquencies (an apparent 4% this period). It should be noted that cost information is included for TMDE, whereas in the comparison period it was not. The 17 delinquent projects also have an impact on this chart. There would have been additional in-house and contract funds expended that were not reported to IBEA.

MMT PROGRAM

PROJECTS ADDED 2ND HALF, CY83



PROJECTS ADDED IN 2ND HALF, CY83

DESCOM

6 83 3001

POWER AND INERTIA SIMULATOR-COMBAT VEHICLE TESTING

THE TEST TRACK AT THE MAINZ ARMY DEPOT IS A PRIMARY BOTTLENECK IN THE REBUILD MISSION. ALTHOUGH THE TEST TRACK IS OVERLOADED AN INCREASE IN THE WORKLOAD IS PROJECTED.

MICOM

3 83 1075

ELECTRONICS COMPUTER AIDED MANUFACTURING (ECAM)

ALTHOUGH INTEGRATED CIRCUITS, HYBRID CIRCUITS, PRINTED CIRCUITS AND CABLES ARE DESIGNED ON A COMPUTER, THERE IS LITTLE COMPUTERIZED CONTROL OF PROCESSES USED TO PRODUCE THESE ITEMS. A MASTER PLAN IS NEEDED TO DEFINE THE AREA AND REQUIREMENTS.

TACOM

4 83 5064

LIGHT WEIGHT SADDLE TANK (PHASE III)

FABRICATE AN ECONMICAL HIGH IMPACT NON-METALLIC FUEL TANK.

AMCCOM (AMMU)

5 83 4580

UV-CURE PAINT FOR LARGE CALIBER PROJECTILES

PROJECTILES ARE SPRAYED PAINTED WITH SOLVENT-CUT ALKYD PAINTS WHICH ARE SUBSEQUENTLY DRIED AND CURED. THE VOLATILE ORGANIC COMPOUNDS THAT ARE EVOLVED DURING DRYING ARE EXHAUSTED TO THE ATMOSPHERE AND IN TURN POLLUTE THE AIR.

5 83 4583

MANUFACTURE OF STEEL FOLDING FINS

THE METHOD OF PRODUCING THE FINS FOR THE XM815 HEAT-MP-T PROJECTILE INVOLVES COSTLY AND TIME CONSUMING SURFACE GRINDING RESULTING IN COST PER PROJECTILE OF \$570.00.

PROJECTS ADDED IN 2ND HALF, CY83
(CONTINUED)

5 83 4663

REMOVAL OF BARIUM FROM COMP A-3, TYPE II WASTEWATER

THE PLANNED TYPE II COMPOSITION A-3 USES BARIUM CHLORIDE AS AN EMULSION BREAKER. FREE BARIUM IONS ARE EXTREMELY TOXIC. FEDERAL AND STATE REQUIREMENTS PERMIT ONLY UP TO 1 MG/L FREE BARIUM IN DRINKING WATER. HENCE, TREATMENT OF EFFLUENT REQUIRED.

TOTAL PROJECTS ADDED IN 2ND HALF, CY83 6

MMT PROGRAM

FINAL STATUS REPORTS RECEIVED DURING 2ND HALF, CY83



FINAL STATUS REPORTS RECEIVED DURING 2ND HALF, CY83

DESCOM

G 83 0002

CAM APPLICATION OF ROBOTICS TO SHELTER REFINISHING

CONTRACT LET TO DESIGN AND SPECIFY A ROBOTIC STATION TO PAINT VARIOUS ALUMINUM COMMUNICATIONS SHELTERS. A SECOND CONTRACT LET TO DESIGN AND SPECIFY A ROBOTIC STATION TO PREPARE SURFACES OF ALUMINUM SHELTERS FOR PAINTING.

G 81 4005

WATER JET MATERIAL REMOVAL SYSTEM

THE DESIGN OF THE WATER JET SYSTEM HAS BEEN COMPLETED BY THE CONTRACTOR.

ERADCOM

2 77 9754

CONTIN CYCLE PROC OF SHOCK RESISTANT QUARTZ CRYSTAL UNITS

GENCO BUILT A PILOT LINE FOR FABRICATING 22 MHZ AT CUT QUARTZ CRYSTALS IN CERAMIC FLATPACKS. WORK INCLUDED PROVE-IN OF THE VACUUM QUARTZ CRYSTAL FABRICATION FACILITY CONSTRUCTED UNDER PHASE I (2 76 9754). 716 UNITS WERE PROCESSED IN FINAL PILOT RUN.

H 80 9897

SURFACE ACOUSTIC WAVE RESONATOR + REFLECTIVE ARRAY DEVICES

THE PROCESSES FOR PRODUCING SURFACE ACOUSTIC WAVE (SAW) COMPRESSIONS HAVE BEEN DEVELOPED. AN INDUSTRY DEMONSTRATION OF THE RESULTS WAS HELD IN NOV. THESE DEVICES ARE EXPECTED TO BE USED ON ELINT AND SIGINT.

TMDE

3 81 3115

ENGINEERING FOR METROLOGY AND CALIBRATION

THIS PROJECT HAS BEEN COMPLETED.

3 81 3115 24

AUTO OF LAB CALIBRATION SERVICES

THIS SUBTASK HAS BEEN COMPLETED. THIS SUBTASK RESULTED IN THE REPLACEMENT OF THE MINICOMPUTER PREVIOUSLY USED BY THE ARMY'S PRIMARY STANDARDS LABORATORY WITH A SMALL MORE EFFICIENT DESK TOP COMPUTER/CONTROLLER.

FINAL STATUS REPORTS RECEIVED DURING 2ND HALF, CY83
(CONTINUED)

3 81 3115 25
BASIC METROLOGY STDS FOR USE IN WIDE-RANGING ENVIRONMENTS
WORK ON THIS SUBTASK IS CONTINUED UNDER 3 82 3115-25.

3 81 3115 29
SOLID STATE VOLTAGE STDS F/REPLACE OF CHEMICAL STD CELLS
WORK ON THIS TASK HAS BEEN COMPLETED.

AMMRC

M 78 6350 2226
AIR FLOW TEST EQUIPMENT

THE INTERFACE CIRCUITRY FOR CONTROLLING THE VALVE AND
SENSING SYSTEM PRESSURE WAS BUILT. A PERMANENT FRAMEWORK TO
SUPPORT THE SYSTEM PIPING WAS COMPLETED. THE TECHNICAL
REPORT IS BEING FINALIZED.

M 78 6350 2434
RAPID NDT FOR DUPONT DENSITY AND DISTRIBUTION

THE WORK HAS BEEN COMPLETED. TECHNOLOGY HAS BEEN
TRANSITIONED TO INDUSTRY. THIS TECHNOLOGY IS NOW ROUTINELY
EMPLOYED BY CONTRACTORS ON INCOMING LASER RODS TO EVALUATE
ND DOPING. THIS PROGRAM HAS CONTRIBUTED TO THE COST
REDUCTION OF GVS-5 RANGEFINDER.

M 79 6350 2425
OPTICAL TESTING OF FAK INFRARED MATERIALS

NO PROGRESS HAS BEEN MADE ON THIS PROJECT SINCE THE LAST
REPORTING PERIOD DUE TO HIGHER PRIORITY PROGRAMS.

M 79 6350 2430
ACCEPT TESTER FOR COMMON MODULE SCANNER PERFORMANCE

THIS PROJECT WORK HAS BEEN COMPLETED. THE EQUIPMENT WILL
EITHER BE RETAINED BY NVLL FOR IN-HOUSE TEST USE OR
PROVIDED AS GFE FOR MANUFACTURING TESTING.

M 79 6350 2433
POWER SUPPLY TEST CONSOLE FOR 2ND GEN IMAGE INTENSIFIER

THE SOFTWARE DEVELOPMENT AND TESTING HAS BEEN COMPLETED FOR
THE FOUR POWER SUPPLIES. DOCUMENTATION OF THE SOFTWARE,
OPERATOR MANUAL AND FINAL REPORT REMAIN TO BE COMPLETED.

FINAL STATUS REPORTS RECEIVED DURING 2ND HALF, CY83
(CONTINUED)

M 79 6350 2450
GUN STEEL ADHESION CHROMIUM COATING MEASUREMENT
SEE PROJECT NO M 80 + 81 6350-2450 FOR STATUS.

M 81 6390
HMT PROGRAM IMPLEMENTATION AND INFORMATION TRANSFER
PUBLICATION OF THE MANTECH JOURNAL.

TECOM

O 78 5071 37
MILITARY VEHICLE ROLL OVER TESTS
SEE SUBTASK 37 FY83 FOR DATA.

O 79 5071 37
MILITARY VEHICLE ROLL OVER TESTS
SEE SUBTASK 37 FY83 FOR DATA.

O 80 5071 43
TEST AUTOMATION DEVELOPMENT
SEE SUBTASK 43 FY83 FOR DATA.

C 80 5071 57
GENERAL PURPOSE BIT SLICE MICRO-COMPUTER
* SEE SUBTASK 57 FY83 FOR DATA.

C 80 5071 59
SOLAR POWERED INSTRUMENTATION VAN
* SEE SUBTASK 59 FY82 FOR DATA.

C 80 5071 60
RECEIVER OPERATING CHARACTERISTICS MEASUREMENTS
SEE SUBTASK 60 FY81 FOR DATA.

C 80 5071 71
IMPROVED COPPER CRUSHER GAGE
SEE SUBTASK 71 FY83 FOR DATA.

FINAL STATUS REPORTS RECEIVED DURING 2ND HALF, CY83
(CONTINUED)

AVSCOM

1 81 7108

MANUFACTURING TECHNIQUES FOR TRANSMISSION SHAFT SEALS

TECHNICAL WORK COMPLETED. FINAL REPORT HAS BEEN WRITTEN AND PRINTED, HOWEVER, THE REPRRT COVER IS BEING CHANGED BEFORE DISTRIBUTION.

1 80 7155

COST EFFECTIVE MANUFACTURING METHODS FOR HELICOPTER GEARS

WORK BY INTERNATIONAL HARVESTER HAS CEASED AND CONTRACT TERMINATION IS UNDERWAY. DCAS IS CONDUCTING A SURVEY OF EQUIPMENT AND IS ARRANGING TO REMOVE GOVERNMENT EQUIPMENT FROM THE HINSDALE PLANT. PROGRAM WILL NOT CONTINUE.

1 81 7155

COST EFFECTIVE MANUFACTURING METHODS FOR HELICOPTER GEARS

IN VIEW OF CONTRACTORS UNWILLINGNESS TO CONTINUE, FUNDS IN THE AMOUNT OF 220K DOLLARS WILL BE RETURNED TO AVSCOM.

1 80 7156

ULTRASONIC ASSISTED MACHINING FOR SUPERALLOYS

FURTHER DELAY WILL BE ENCOUNTERED IN INSTALLING EQUIP AT CORPUS CHRISTI ARMY DEPOT. CONTRACTOR HAS BEEN GIVEN AUTHORITY TO SHIP AND INSTALL EQUIP. FURTHER LOAN AGREEMENTS WILL BE THE RESPONSIBILITY OF AVSCOM.

1 81 7200

COMPOSITE ENGINE INLET PARTICLE SEPARATOR

ALL PROJECT WORK COMPLETED. IMPLEMENTATION OF COMPOSITE ENGINE INLET PARTICLE SEPARATOR IS PLANNED FOR THE T700 GROWTH ENGINE. PROJECT TECHNOLOGY HAS BEEN INCORPORATED IN 5000 HP MIDE 6.3 PROGRAM.

1 79 7236

PRECISION FORGED ALUMINIUM POWDER METALLURGY

BASED ON TECHNICAL PROBLEMS, UNSATISFACTORY FORGING RESULTS AND UNAVAILABILITY OF FUNDS TO MEET ORIGINAL GOALS THE AIR FORCE AND ARMY TERMINATED THE EFFORT. FINAL TECHNICAL REPORT HAS BEEN WRITTEN.

FINAL STATUS REPORTS RECEIVED DURING 2ND HALF, CY83
(CONTINUED)

1 81 7298

HIGH TEMPERATURE VACUUM CARBURIZING

ALL WORK UNDER THIS PROJECT HAS BEEN COMPLETED.
METALLURGICAL EXAMINATIONS WERE PERFORMED ON THREE TEST
9310 STEEL SLUGS. THE PROCEDURE FOR HEAT TREATING THE BMS
7-223 GEARED ROLLER TEST SPECIMENS WAS PREPARED AND ALL
ROLLERS WERE HEAT TREATED.

1 82 7340

COMPOSITE MAIN ROTOR BLADE

THE FINAL REPORT DRAFT HAS BEEN REVIEWED, AND IS BEING
CORRECTED.

1 81 7351

COMPOSITE SHAFTING FOR TURBINE ENGINES

A TECHNICAL REPORT IS IN PREPARATION.

1 82 7366

SPIRAL SELF-ACTING SEALS

PROJECT TERMINATED AT REQUEST OF PM. SPIRAL SELF-ACTING
SEAL WILL BE INCORPORATED IN T700-6E-702. RFP NEVER ISSUED.

7 82 8190

IMPRVD CUTTER LIFE, T-700 COMP BLISK/IMPELLER MILLING OPER

LABORATORY TESTS AND PRODUCTION VERIFICATION TESTS HAVE
RESULTED IN THE IDENTIFICATION OF TOOL MATERIAL, GEOMETRY,
SPEEDS, AND FEEDS WHICH YIELD THE BEST RESULTS IN ACTUAL
PRODUCTION. ALL WORK IS COMPLETE. IMPLEMENTATION IS
UNDERWAY.

MICUM

3 83 1072

MULTIPLE HIGH RELIABILITY/LOW VOLUME LSI MANUFACTURING (CAM)

INSOUTH MICROSYSTEMS COMPLETED A STUDY OF PROCESSES
INCLUDING PHOTORESIST COATING, CHEMICAL VAPOR DEPOSITION,
ION IMPLANTATION, DIFFUSION AND METALLIZATION. ALL ARE GOOD
FOR GROUP APPLICATION EXCEPT DIFFUSION WHICH MUST BE
COMPUTER CONTROLLED.

FINAL STATUS REPORTS RECEIVED DURING 2ND HALF, CY83
(CONTINUED)

- 3 82 1086
COBALT REPLACEMENT IN MANAGING STEEL-ROCKET MOTOR COMPONENTS

PHASE TWO EFFORT COMPLETE. TECHNICAL REPORT PUBLISHED AND RECEIVED BY IBEA.
- 3 81 3139
MILLIMETER SEEKERS FOR TERMINAL HOMING (TH)

THIS EFFORT IS COMPLETED. UNCLASSIFIED TECHNICAL REPORT IS STILL NOT RELEASED. A SPECIAL WORKING GROUP EVALUATING CONCEPT DEFINITION PROPOSALS FOR THE TERMINALLY GUIDED WARHEAD RECEIVED THE IMPLEMENTATION PLAN FOR MLRS-TGW.
- 3 81 3294
PRODUCTION PROCESSES FOR ROTARY ROLL FORMING

PROJECT COMPLETE. TECHNICAL REPORT WHICH WAS RECEIVED IS NOT THE FINAL TECHNICAL REPORT.
- 3 81 3445
PRECISION MACHINING OF OPTICAL COMPONENTS

THIS PROJECT IS COMPLETE. A FACILITY HAS BEEN ESTABLISHED FOR DIAMOND TURNING HIGH ENERGY LASER AND INFRARED OPTICS.

TACOM

- T 79 4575
LASER WELDING TECHNIQUES FOR MILITARY VEHICLES

ALL WORK COMPLETED.
- T 80 5045
SPALL SUPPRESSIVE ARMOR FOR COMBAT VEHICLES (PHASE II)

THE PROJECT IS COMPLETED. A FINAL TECHNICAL REPORT (NO. 12853) HAS BEEN PUBLISHED. A PIP COULD BE INSTALLED IN M113 VEHICLES AT THE RED RIVER ARMY DEPOT. THE COST OF THE KITS ARE EXPECTED TO BE EXTREMELY HIGH. CREW CASUALTY REDUCTION IS VERY GOOD.
- T 81 5082
FLEXIBLE MACHINING SYSTEM, PILOT LINE FOR TCV COMPONENTS

THIS PROJECT IS PHASE 3 OF A 5 PHASE PROGRAM. THIS PHASE IS COMPLETE AND RESULTED IN A 5 VOLUME FMS MANUAL. A END OF PROJECT PRESENTATION IS SCHEDULED FOR APRIL 1984.

FINAL STATUS REPORTS RECEIVED DURING 2ND HALF, CY83
(CONTINUED)

T 81 5085

PRODUCTION TECHNIQUES FOR FABRICATING TURBINE RECUPERATOR

PROJECT COMPLETED THE SYSTEM IS INSTALLED AND OPERATING SUCCESSFULLY.

T 80 6057

XMI COMBAT VEHICLE

SEE SUBTASK NUMBER 6. PROJECT IS BEING TERMINATED. NO FINAL TECH REPORT WILL BE WRITTEN. DCAS CLEVELAND IS NEGOTIATING RETURN OF FUNDS.

T 80 6057 06

METROLOGY METHODS

THE TASK WAS TERMINATED. TACUM PROCUREMENT PROCEDURES ARE UNDERWAY TO OBTAIN THE BALANCE OF THE FUNDS FROM THE CONTRACTOR.

T 82 6067

FRAME WELDING FIXTURES

ALL WORK COMPLETED WAITING ON FINAL TECHNICAL REPORT.

AMCCOM (AMMU)

5 78 1353

SMOKE MIX PROCESS (GLATT)

A TECHNICAL REPORT HAS BEEN PREPARED AND SUBMITTED TO COMPLETE THIS PROJECT.

5 79 1354

SLUDGE VOLUME REDUCTION AND DISPOSAL PROCESS STUDY

BENCH AND PILOT PLANT BATCH TESTS WERE PERFORMED ON INCINERATOR EFFLUENT SLUDGE AND LATER ON SETTLED LAGOON SLUDGE. THE SLUDGES WERE CHARACTERIZED FOR SOLIDS CONTENT, PCT SETTLED SLUDGE VOLUME, AND WHETHER THEY WERE HAZARDOUS BY RCRA DEFINITION.

5 79 1355

MANUFACTURING PLANT TOXIC EFFLUENT/EMISSION PRETREATMENT

DESIGN CRITERIA AND FINAL TECHNICAL REPORT ARPBA-TR-24 WERE COMPLETED IN MARCH 1983.

FINAL STATUS REPORTS RECEIVED DURING 2ND HALF, CY83
(CONTINUED)

5 80 1355

MANUFACTURING PLANT TOXIC EFFLUENT/EMISSION PRETREATMENT

THIS PROJECT IS COMPLETE. TOXIC POLLUTANTS AND HAZARDOUS WASTE PRODUCED AT PBA WAS IDENTIFIED. THE BAT FOR TREATMENT OF THE WASTE WAS EVALUATED AND DESIGN CRITERIA PREPARED FOR PILOT SCALE EVALUATION.

5 79 4046

QUANTITATIVE ANALYSIS OF BLENDED EXPLOSIVE SAMPLES

A PROCESS FOR CONDUCTING RAPID CHEMICAL ANALYSIS OF NUL-130 VIA THE USE OF A POLAROGRAPH WAS DEVELOPED. IT TAKES ONLY 45 MIN. THIS COMPARES TO THE STATUS QWO METHOD (WET CHEMICAL ANALYSIS) WHICH REQUIRES 4 HOURS.

5 82 4061

NITROGUANIDINE PROCESS OPTIMIZATION

THE NG DEMO PLANT WAS OPERATED TO OPTIMIZE NG AND ON PROCESS PARAMETERS. AN INTERIM TECHNICAL REPORT WAS WRITTEN COVERING OPERATIONS AND ENGINEERING ANALYSIS OF RESULTS OBTAINED.

5 82 4078

UPGRADE SAFETY, READINESS, + PROD OF EXISTING MELT POUR LINES

IN-HOUSE LOADING TESTS TO DEFINE AN ACCEPTABLE PROCESS FOR ELIMINATING PURDITY IN TNT LOADED 155MM, M549 WARHEADS WERE TERMINATED WITHOUT SUCCESSFUL RESULTS. IDWA AAP HAS COMPLETED THE CONCEPT DESIGN FOR UPDATING LINE 3A.

5 78 4149

LOADING OF 30MM ADEN/DEFA HEDP AMMUNITION

THE OBJECTIVES ESTABLISHED AT THE START OF THE PROGRAM WERE SUCCESSFULLY MET. THE 3 MAJOR TASKS COVERED PROJECTILE FABRICATION, SHAPE CHARGE LINER FABRICATION AND PROJECTILE CHARGE LOADING. ALL PROCESSES DEVELOPED ARE BEING USED IN ACTUAL PRODUCTION.

5 80 4189

HIGH FRAGMENTATION STEEL PRODUCTION PROCESS

WORK ON THIS PROJECT IS COMPLETE EXCEPT FOR THE FINAL TECHNICAL REPORT. THE FY82 PROJECT WAS TERMINATED AS OF 05/02/83.

FINAL STATUS REPORTS RECEIVED DURING 2ND HALF, CY83
(CONTINUED)

5 80 4281

CONSERVATION OF ENERGY AT ARMY AMMUNITION PLANTS

SEE THE FOLLOWING INDIVIDUAL TASKS FOR WORK STATUS.

5 80 4281 A01

PROCESS ENERGY INVENTORY

THIS TASK HAS BEEN COMPLETED. AT IOWA AAP, THE INVENTORY IDENTIFIED SEVERAL POTENTIAL ENERGY CONSERVATION OPPORTUNITIES. AT KANSAS AAP, AN ELECTRIC MOTOR STUDY DEVELOPED A PRIORITY LIST OF MOTORS SO THEY COULD BE REPLACED WITH HIGH EFFICIENCY MOTORS.

5 80 4281 A04

ENERGY RECOVERY FROM WASTE HEAT

THE HEAT PIPE HEAT RECOVERY SYSTEM WAS EVALUATED. THE SYSTEM WAS DESIGNED TO RECOVER 12MM BTU/HR FROM THE HOT WASTE WATER. RECOVERING HEAT FROM THE HOT KETENE VAPOR TO PREHEAT COMBUSTION AIR FOR THE KETENE FURNACE WAS PROVEN. FINAL RPT BEING PRINTED.

5 80 4281 A06

UNCOOLED PRODUCER GAS FOR KETENE MANUFACTURE

EQUIP WAS INSTALLED AND DEBUGGED. BENCH SCALE SET-UP INCLUDED INSULATED PIPING, PRESSURE AND TEMPERATURE INSTRUMENTATION, TAR TRAPS AND A SMALL BOILER TO CHECK COMBUSTION EFFICIENCIES. USING HOT, CRUDE PROD GAS AS A FUEL FOR KETENE FURN WAS EXPLORED.

5 81 4285

TNT EQUIVALENCY TESTING FOR SAFETY ENGINEERING

FINAL REPORTS WERE PREPARED ON DIGL-RP, DCTOL 75/25, AND AMMONIUM PERCHLORATE. PREPARED PRELIMINARY REPORTS ON BULK FLAKE TNT AND TNT EQUIVALENCIES.

5 82 4298

EVALUATION OF DIMETHYLNITROGENAMINE DISPOSAL ON HAAP B-LINE

AN INTERIM FINAL TECHNICAL REPORT HAS BEEN PREPARED.

5 80 4309

PROPELLANT PROCESS DEVELOPMENT FOR 120MM TANK AMMUNITION

SEE INDIVIDUAL TASKS.

FINAL STATUS REPORTS RECEIVED DURING 2ND HALF, CY83
(CONTINUED)

5 80 4309 01

DEVELOP MFG METHODS FOR STICK AND JA-2 PROPELLANT

PROCESS STUDIES COMPLETED ON 15-INCH PRESS. BALLISTIC TESTS ON PILOT LOTS CONDUCTED. TAKE AWAY SYSTEM SHIFTED TO DEMAND CUTTER/PNEUMATIC CONVEYOR TYPE. INTERIM DEGN SPENT ACID REPORT PUBLISHED. FINAL TECH REPORT SUBMITTED FOR PUBLICATION.

5 80 4309 02

EXPLOSIVE LOADING OF 120MM HEAT-MP

THE PREVIOUSLY PLANNED MATERIAL HANDLING AND PRODUCTION TOOLING DESIGNS WERE CHANGED FROM 4 CAST LOADED PROJECTILE TO A PRESS LOADED UNIT. THE CHANGE WAS MADE QUICKLY AND EFFECTIVELY AND PROCUREMENT PACKAGES PREPARED TO PROCURE THE REQUIRED HARDWARE.

5 80 4309 03

ASSEMBLY PROCESS DEVELOPMENT

BUNDLING ALIGNMENT CARTS, PROPELLANT LOADING STATION AND BASE CASE AND CARTRIDGE CASE ASSEMBLY MACHINE BUILT UNDER THIS TASK ARE INSTALLED AND OPERATING AT IDWA AAP. TASK COMPLETED. FINAL TECHNICAL REPORT PROMISED TO BE INCLUDED WITH FY81 TECH REPORT.

5 80 4310

DMSO RECRYSTALLIZATION OF RDX/HMX

INTERIM QUALIFICATION TESTS WERE COMPLETED ON RDX/HMX EXPLOSIVES RECRYSTALLIZED FROM DMSO. NO SIGNIFICANT DIFFERENCES WERE FOUND. TOXICITY TESTS ON IN-PROCESS PLANT STREAMS INDICATED NO TOXICITY BUT STRONG MUTAGENIC ACTIVITY.

5 81 4449

PROCESS IMPROVEMENT FOR COMPOSITION C-4

SCALE UP OF BATCH SIZES FOR PBX-0280 AND LX14 WAS IMPLEMENTED. DEWATERING USING EIMCO FILTER WAS COMPLETED. DRYER STUDIES USING NAUTA MIXER/DRYER WITH NUMINAL COMP C-4 FLUID INEFFICIENT.

5 80 4484

IMPROVED HI-SPEED WATERPROOFING APPLICATION F/SC AMMO

THIS PROJECT IS COMPLETE. IMPROVED LACQUER APPLICATOR TOOL MODULES WITH A CENTRAL RESERVOIR WERE DEVELOPED FOR THE SCAMP 5.56MM LINE. TIME BETWEEN TOOL REPLACEMENTS WAS INCREASED FROM 350,000 TO GREATER THAN 1.4 MILLION ROUNDS.

FINAL STATUS REPORTS RECEIVED DURING 2ND HALF, CY83
(CONTINUED)

5 79 4498

CONSOLIDATION AND AUTOMATIC ASSEMBLY OF SMALL MINES

AUTOMATIC SOLDERING MACHINE IS COMPLETE AND INSTALLED AT IOWA ARMY AMMUNITION PLANT. FINAL PROVEOUT OF THE MACHINE WILL BE CONDUCTED AT SOME POINT AFTER INITIAL PRODUCTION. EQUIPMENT HAS BEEN DEBUGGED AND INSTALLED AT IAAP.

5 80 4498

CONSOLIDATION AND AUTOMATIC ASSEMBLY OF SMALL MINES

MECHANIZED LOAD ASSEMBLE AND PACK EQUIPMENT FOR THE ASSEMBLY OF MINES WAS DESIGNED AND MANUFACTURED. IOWA ARMY AMMUNITION PLANT INSTALLED AND CONDUCTED FINAL PROVEOUT ON THE LAP EQUIPMENT. TECHNICAL REPORT IS BEING PREPARED.

5 82 4548

PYRO SAFETY ENHANCEMENT

SEE THE FOLLOWING TASKS FOR WORK STATUS.

5 82 4548 01

SAFETY ENHANCEMENT OF BATCH MIX MULLERS

NO MANUAL SCRAPE-DOWN WAS PERFORMED FOR THE COMPOSITIONS TESTED. TEFLON BLADES DECREASED THE BUILD-UP OF COMPOSITION ON THE WALLS OF THE MULLER. A REPORT WAS COMPLETED DESCRIBING THE SCRAPE-DOWN TESTS.

5 82 4548 02

SAFETY ENHANCEMENT TRANSPORT + CONVEYING

A FINAL TECHNICAL REPORT WAS COMPLETED BY SOUTHWEST RESEARCH INSTITUTE ON MATERIALS HANDLING, TRANSPORT AND CONVEYING SYSTEMS.

5 82 4548 03

IMPROVEMENT OF FIRE SUPPRESSION SYSTEMS

A FINAL TECHNICAL REPORT FOR FIRE SUPPRESSION SYSTEMS WAS ISSUED IN DEC 1983.

5 82 4548 04

BAY DESIGN SAFETY ENHANCEMENT

A FINAL TECHNICAL REPORT ON PYROTECHNIC BAY DESIGN HAS BEEN PREPARED.

FINAL STATUS REPORTS RECEIVED DURING 2ND HALF, CY83
(CONTINUED)

AMCCOM (WPNS)

6 79 7482

MODIFIED RIBBON RIFLING GENERATING MACHINE

ALL WORK HAS BEEN COMPLETED AND A TECHNICAL REPORT HAS BEEN WRITTEN.

6 78 7710

INJECTION MOLDING OF RUBBER OBTURATOR PADS

THE FINAL REPORT WAS PUBLISHED AND DISTRIBUTED. AN ECP WAS SUBMITTED AND ACCEPTED. AS A RESULT THE DRAWING HAS BEEN AMENDED TO PERMIT THE INJECTION MOLDING OF OBTURATOR PADS. IMPLEMENTATION WOULD BE ECONOMICAL UNDER MOBILIZATION CONDITIONS.

6 81 7916

APPLICATION OF LOW COST MANDREL MATERIALS

PROJECT COMPLETE. IBEA AWAITING FINAL TECHNICAL REPORT.

6 82 7940

SYNERGISTIC PLATINGS WITH INFUSED LUBRICANTS

THE PROJECT ESTABLISHED THE PROCESS FOR APPLYING A LUBRICANT IMPREGNATED NICKEL PHOSPHOROUS ALLOY COATING ON ARMAMENT COMPONENTS IN A PILOT SCALE FACILITY.

6 81 7948

ESTABLISH CUTTING FLUID CONTROL SYSTEM

ALL WORK HAS BEEN COMPLETED AND THE FTR HAS BEEN DISTRIBUTED TO RIA PERSONNEL AND OTHER DOD ORGANIZATIONS. PARTIAL IMPLEMENTATION OF PROJECT RESULTS IS PRODUCING ANNUAL SAVINGS OF \$25K. FULL IMPLEMENTATION IS BEING PURSUED.

6 82 7966

MANUFACTURE OF TRITIUM POWERED RADIO-LUMINOUS LAMPS

TWO TECH REPORTS WERE PREPARED. ONE REPORT DESCRIBES THE ENTIRE MANUFACTURING PROCESS, PROVIDES A QUALITATIVE ANALYSIS OF EACH MANUFACTURING STEP ON LAMP PERFORMANCE AND PRESENTS A SET OF GUIDELINES WHICH INCLUDE THE NECESSARY PROCESS CONTROLS.

FINAL STATUS REPORTS RECEIVED DURING 2ND HALF, CY83
(CONTINUED)

6 80 8035

COATING TUBE SUPPORT SLEEVES WITH BEARING MATERIALS

TWO M174 PISTONS OVERLAYED WITH AL-BRONZE BEARING MATERIAL WERE TESTED FOR 5,000 ROUNDS. NO ADVERSE DEGRADATION OF THE PISTON OCCURRED. OVERALL PERFORMANCE OF THE BEARING MATERIAL WAS GOOD. A ECP WAS SUBMITTED AND ACCEPTED AFTER COMPLETE EVALUATION.

6 80 8036

WEAPON AIMING SYSTEM FOR THE 6-DOF SIMULATOR

THIS PROJECT HAS BEEN COMPLETED. A WEAPON AIMING SYSTEM FOR THE 6-DOF SIMULATOR WAS DESIGNED, IMPLEMENTED AND TESTED UNDER THIS PROJECT. NOW WEAPONS MAY BE TEST FIRED FROM THE SIMULATOR DURING YAW AND PITCHING MOTIONS.

6 81 8106

LARGE CALIBER POWDER CHAMBER BORING

A BORING BAR SYSTEM WAS PROCURED INSTALLED AND TESTED. MODIFICATIONS WERE MADE AS NECESSARY. A PRECISION POSITIONING SYSTEM IS BEING PROCURED UNDER TWO STEP PROCUREMENT.

6 81 8151

PORTABLE ENGRAVING SYSTEM

CONTRACT AWARD WAS MADE TO E.S-I, ALBANY, NY DURING SEP 83 WITH COMPLETION DATE EARLY MAY 1984.

6 81 8152

IMPROVED ANODE STRAIGHTNESS FOR CHROMIUM PLATING

FABRICATION OF ANODE SUB-SCALE SPECIMENS WAS COMPLETED. LEAD PLATING OF THE ANODE AND GUN TUBE SECTIONS WAS ACCOMPLISHED. THE DESIGN AND FABRICATION OF THE FULL SCALE WAS COMPLETED. LEAD PLATING OF THE FULL SCALE ANODE WAS COMPLETED.

6 81 8153

INCREASING GUN TUBE HEAT TREATMENT CAPACITY

ALL EXPERIMENTATION AND TESTING HAVE BEEN COMPLETED FOR BOTH THE RETAINED HEAT EFFORT AND THE INDUCTION HEATING EFFORT. THE FOLLOW-ON FY84 PROJECT WILL INVESTIGATE TECHNIQUES TO INCREASE THE EXISTING TEMPERING FURNACE CAPACITY.

FINAL STATUS REPORTS RECEIVED DURING 2ND HALF, CY83
(CONTINUED)

6 82 8370

AUTOMATIC INSP AND PROC CONTRL OF WEAPONS PARTS MFG

AN AUTOMATED GUN BARREL STRAIGHTENING METHOD HAS BEEN SELECTED. THE CONTRACTORS FINAL REPORT HAS BEEN REVIEWED AND RETURNED FOR FINAL SUBMISSION. THIS IS THE FINAL STATUS REPORT.

TRUSCUM

E 80 3708

COATED FABRIC COLLAPSIBLE FUEL TANK PROGRAM - CIRCULAR SEAML

TWO FULL SIZE ENDLESS FABRICS PRODUCED EARLIER WERE COATED WITH A SUITABLE POLYMER AND FABRICATED INTO SEAMLESS TANKS. THEY WERE SHIPPED TO YPG AND EXPOSED FOR 9 MONTHS. ONE FILLED WITH H2O DID NOT LEAK. DIESEL IN 2ND DID NOT LEAK BUT HAD DARK SPOTS.

E 80 3709

CONTINUOUS LENGTH FUEL HOSE

TECHNICAL WORK WAS COMPLETED, BUT ADDITIONAL WORK IS NECESSARY TO MAKE THIS PROCESS SUCCESSFUL. IT WAS DECIDED TO TERMINATE THIS PROJECT SINCE INDUSTRY HAS INDEPENDENTLY DEVELOPED THIS PROCESS, AND IS NOW SELLING 'CONTINUOUS LENGTH FUEL HOSE'.

E 79 3743

COMPOSITE SPUN MATERIAL LAUNCHING BEAM FOR BRIDGES

TECHNICAL WORK COMPLETED. THE TOTAL EFFORT CONTINUED AS PROJECT E813743 WHICH HAS ALSO BEEN COMPLETED. A FINAL TECHNICAL REPORT WAS PROVIDED FOR THE FY81 PROJECT.

E 81 3743

COMPOSITE SPUN MATERIAL LAUNCHING BEAM FOR BRIDGES

PROJECT COMPLETE. THE PROCESS WAS DEMONSTRATED BUT NOT OPTIMIZED. MANY IMPROVEMENTS COULD BE MADE. NO FURTHER WORK WILL BE UNDERTAKEN BECAUSE THE PROPOSED APPLICATION FOR THE LAUNCH BEAM WAS CANCELLED. BRIDGING IN THE EIGHTIES PROGRAM WAS STOPPED.

E 81 3759

COMPOSITE MATERIAL REINFORCEMENT FOR MILITARY BRIDGES

THE PROJECT WORK IS COMPLETE AND A FINAL TECHNICAL REPORT IS AVAILABLE. A GRAPHITE/EPOXY TENSILE LINK WAS WOUND IN A SIMPLE RACETRACK CONFIGURATION AND TESTED FOR STRUCTURAL INTEGRITY. THE LINK INCLUDING METAL END FITTINGS WEIGHED ONLY 33 POUNDS.

TOTAL PROJECTS COMPLETED IN 2ND HALF, CY83 65

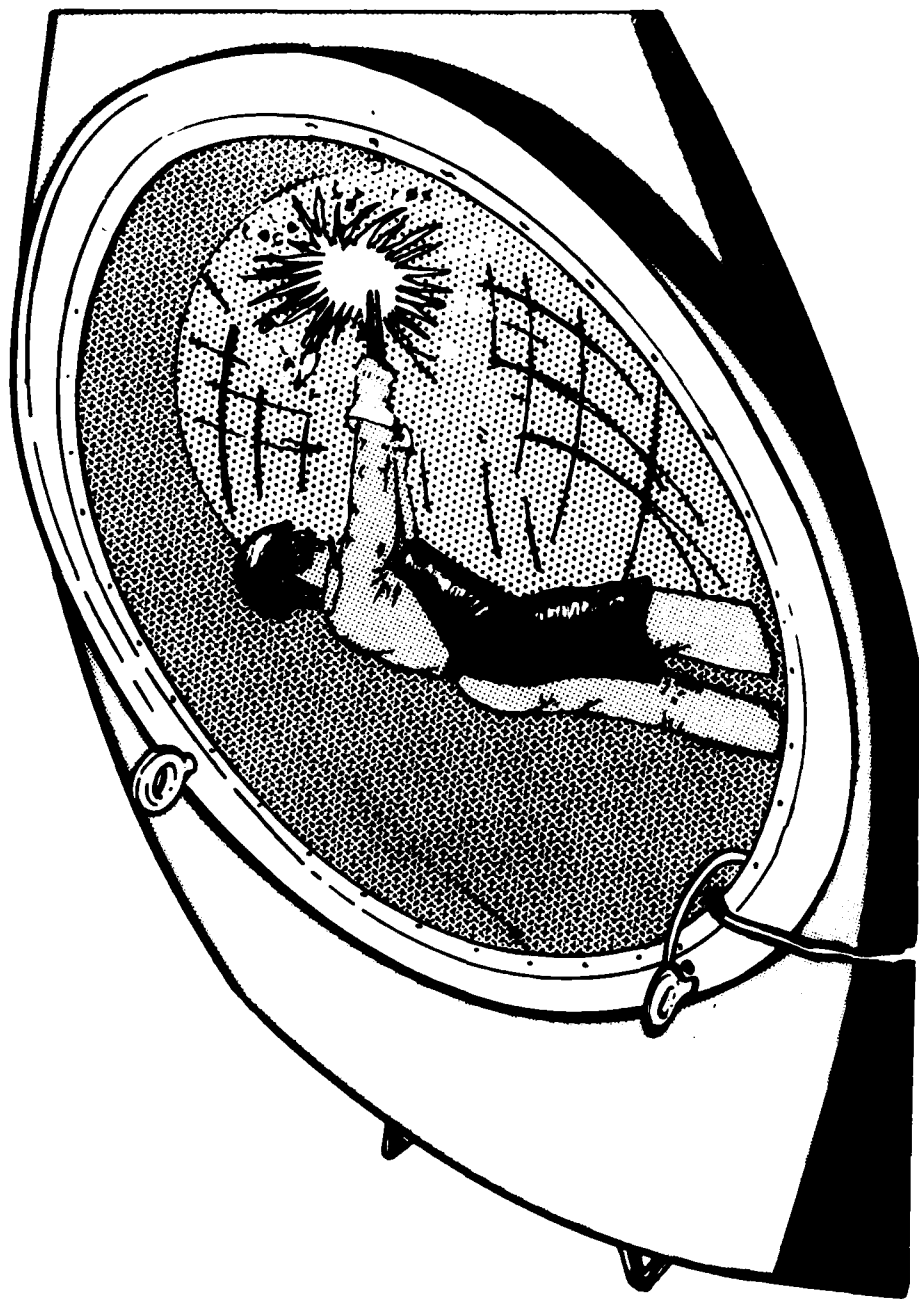
MMT PROGRAM
SUMMARY PROJECT STATUS REPORT



MANUFACTURING METHODS AND TECHNOLOGY PROGRAM

SUMMARY PROJECT STATUS REPORT

The Summary Project Status Report for each major Army subcommand (SUBMACOM) is preceded by the tabulated SUBMACOM MMT project funding status. The accuracy of funding amounts is based on the individual project status reports. The status as reported here is the IBEA condensation of information contained in the report or other comments as deemed useful. If a status report was not provided, a pertinent comment was made so that the project would be printed.



**DEPOT SYSTEMS COMMAND
(DESCOM)
AND
MANAGEMENT ENGINEERING TRAINING ACTIVITY
(AMETA)**

A M E T A A N D D E P U T S Y S T E M S C O M M A N D

CURRENT FUNDING STATUS, 2ND CYCLES

| FISCAL YEAR | NU. OF PROJECTS | AUTHORIZED FUNDS (\$) | * * C O N T R A C T A L L O C A T E D (\$) | * * F U N D I N G E X P E N D E D (\$) | * * I N H O U S E R E M A I N I N G (\$) | * * F U N D I N G E X P E N D E D (\$) |
|----------------|--------------------|-----------------------------|--|--|--|--|
| 77 | 1 | 583,000 | 383,000 | 315,300 (82%) | 0 | 0 (0%) |
| 77 | 0 | 0 | 0 | 0 (0%) | 0 | 0 (0%) |
| 78 | 1 | 870,000 | 743,000 | 579,300 (77%) | 127,000 | 127,000 (100%) |
| 79 | 1 | 495,000 | 387,800 | 312,700 (82%) | 107,200 | 107,200 (100%) |
| 80 | 1 | 460,000 | 432,000 | 196,300 (45%) | 26,000 | 26,000 (100%) |
| 81 | 2 | 952,000 | 392,000 | 288,900 (73%) | 56,000 | 56,000 (5%) |
| 82 | 7 | 2,438,000 | 1,075,400 | 622,500 (57%) | 1,362,600 | 210,600 (15%) |
| 83 | 3 | 220,000 | 120,000 | 46,300 (38%) | 100,000 | 0 (0%) |
| TOTAL | 16 | 5,818,000 | 3,533,200 | 2,369,300 (67%) | 2,284,800 | 511,100 (22%) |

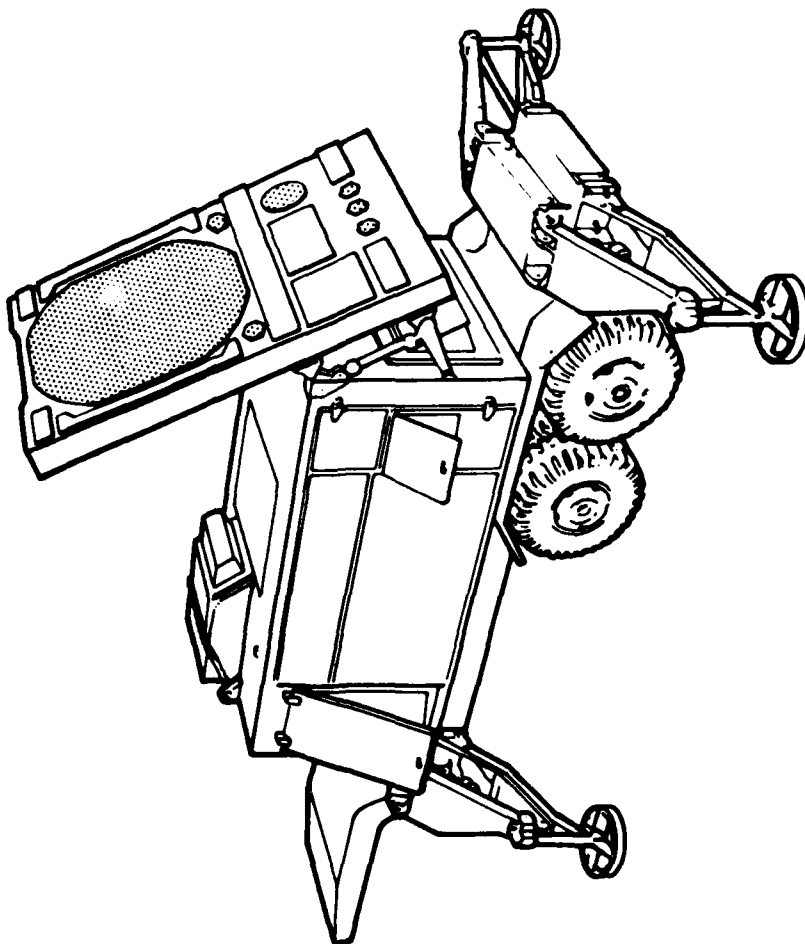
AUTHORIZED FUNDING CONTRACT ALLLOCATED 61% INHOUSE REMAINING 39%

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
S U M M A R Y P R O J E C T S T A T U S R E P O R T
2ND SEMI-ANNUAL SUBMISSION CY 83 RCS DRCMT-301

| PROJ No. | TITLE + STATUS | AUTHO- RIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|----------|---|----------------------------|-------------------------------|---|---|--|
| | | | | | | |
| 77 5052 | ARMY ENGINEERING DESIGN HANDBOOK FOR PRODUCTION SUPPORT CONTINUED WORK ON 706-158 AND 159, DYNAMICS OF BALLISTIC IMPACT, PARTS 1 + II, AND 706-199, DEVELOPMENT GUIDE FOR RELIABILITY, PART 5, CONTRACTING FOR RELIABILITY. | 383.0 | 383.0 | | JUN 78 | JUN 84 |
| 78 5052 | ARMY ENGINEERING DESIGN HANDBOOK FOR PRODUCTION SUPPORT HANDBOOK 706-103, SELECTED TOPICS IN EXPERIMENTAL STATICS PUBLISHED. | 870.0 | 743.0 | 127.0 | NOV 79 | JUN 84 |
| 79 5052 | ARMY ENGINEERING DESIGN HANDBOOKS FOR PRODUCTION SUPPORT CAMERA READY COPY COMPLETED FOR HANDBOOK NO 706-100, DESIGN GUIDANCE FOR PRODUCTIBILITY. WORK STARTED ON PRELIM FINAL DRAFT MANUSCRIPT FOR HANDBOOKS 706-125 AND 706-280. | 495.0 | 387.8 | 107.2 | MAY 83 | JUN 84 |
| 80 5052 | ARMY ENGINEERING DESIGN HANDBOOKS FOR PRODUCTION SUPPORT WORK ON 706-280 PRELIMINARY FINAL DRAFT MANUSCRIPT CONTINUE. WORK ON 706-177 FINAL DRAFT MANUSCRIPT CONTINUING AT AMCCOM. DELAYS EXPERIENCED IN GETTING TECHNICAL WORK GROUPS TO FINALIZE OUTLINE FOR 706-123, 706-210, AND 706-XXX. | 460.0 | 432.0 | 28.0 | JAN 83 | JUN 84 |
| 81 5052 | ARMY ENGINEERING DESIGN HANDBOOKS FOR PRODUCTION SUPPORT STATUS OF PROJECT CANNOT BE DETERMINED SINCE THE STATUS OF THIS REPORT IS IDENTICAL WITH THE PREVIOUS FOUR STATUS REPORTS. | 531.0 | 392.0 | 36.1 | JAN 84 | JUN 84 |
| 82 5052 | ARMY ENGINEERING DESIGN HANDBOOKS FOR PRODUCTION SUPPORT TECHNICAL WORKING GROUPS (TWG) FORMED FOR 706-160, 170, 247, AND 481. PRELIMINARY DRAFT MANUSCRIPT BEING PREPARED ON 706-120. PROBLEMS EXPERIENCED IN GETTING TWG FORMED FOR 706-410. | 580.0 | 550.0 | 29.7 | SEP 83 | JUN 84 |
| 83 5052 | ARMY ENGINEERING DESIGN HANDBOOKS FOR PRODUCTION SUPPORT WORK STARTED ON 706-122. REMAINDER OF FUNDS EXPENDED IN FY83 EFFORTS ON 706-430 AND TO COVER 6 MONTHS OPERATION OF RESEARCH TRIANGLE INSTITUTES HANDBOOK OFFICE. | 120.0 | 120.0 | | DEC 83 | JUN 84 |

S U M M A R Y P R O J E C T S T A T U S R E P O R T
MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
2ND SEMIANNUAL SUBMISSION CY 83 RCS DMCMT-301

| PROJ NO. | TITLE + STATUS | AUTHORIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|----------|---|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| 02 2001 | PROVIDE PROTOTYPE ROBOTS FOR AUTOMATED BLAST CLEANING THE SOLICITATION PACKAGE HAS BEEN RELEASED TO ALL PROSPECTIVE BIDDERS. PRE-PREQUAL CONFERENCE SCHEDULED FOR 29 FEB 84. | 162.0 | | 2.0 | SEP 84 | SEP 84 |
| 02 2002 | LONG RANGE DEPT PRODUCTIVITY IMPROVEMENT PROGRAM THE STATEMENT OF WORK FOR PHASE I WAS FINALIZED AND REVIEWED BY TACLM. | 100.0 | | 56.0 | JUN 84 | JUN 84 |
| 03 3001 | POWER AND INERTIA SIMULATOR-COMBAT VEHICLE TESTING A SCOPE OF WORK IS BEING PREPARED. | 100.0 | | | NOV 86 | NOV 86 |
| 01 4002 | ROBOTIZED WELDING OF M113A2 SUSPENSION FLOOR LAYOUTS HAVE BEEN APPROVED. FIXTURES HAVE BEEN DESIGNED AND BUILT. | 421.0 | | | SEP 81 | DEC 84 |
| 02 4002 | ROBOTIZED WELDING OF M113A2 SUSPENSION FLOOR LAYOUTS HAVE BEEN APPROVED. FIXTURES HAVE BEEN DESIGNED AND BUILT. | 344.0 | 336.1 | 8.3 | AUG 84 | DEC 84 |
| 02 4004 | AUTOMATED DISASSEMBLY OF DOUBLE PIN TRACK ORIGINAL SPECIFICATIONS WERE RECALLED FOR TECHNICAL MODIFICATIONS THUS RESULTING IN A 6 MONTH DELAY IN PROCUREMENT ACTION. BID PROPOSAL IS DUE INTO PROCUREMENT BY MID JANUARY 1984. | 952.0 | | 5.3 | SEP 83 | SEP 85 |
| 02 4005 | WATER JET MATERIAL REMOVAL SYSTEM PHASE II THE SYSTEM HAS BEEN FABRICATED AND DELIVERED TO RRAD. ONE OF THE PUMP MOTORS WAS FOUND TO BE DEFECTIVE. THE MOTOR IS BEING REPLACED BY THE CONTRACTOR AND ACCEPTANCE TESTS WILL BE PERFORMED IN FEBRUARY 1984. | 200.0 | 189.3 | 7.5 | DEC 83 | DEC 84 |
| 03 7001 | AUTO DYNAMOMETER CONTROL F/STANDARDIZED INSPECT TEST (CAM) ===== DELINQUENT STATUS REPORT ===== | | | | | JUN 84 |
| 02 8001 | ANALYST PRODUCTIVITY IMPROVEMENT PROGRAM STATEMENT OF WORK AND SUPPORTING MATERIALS ARE BEING DEVELOPED. | 100.0 | | 100.0 | SEP 83 | SEP 83 |



**ELECTRONICS
RESEARCH AND DEVELOPMENT COMMAND
(ERADCOM)**

ELECTRONICS K&D CUMMANS

CURRENT FUNDING STATUS, 2ND CYOS

| FISCAL YEAR | NO. OF PROJECTS | AUTHORIZED FUNDS (\$) | CONTRACT FUNDS ALLOCATED (\$) | CONTRACT FUNDS EXPENDED (\$) | FUNDS REMAINING (\$) | FUNDS EXPENDED (%) |
|-------------|-----------------|-----------------------|-------------------------------|------------------------------|----------------------|--------------------|
| 76 | 1 | 248,800 | 247,600 | 247,600 (100%) | 1,200 | (.5%) |
| 77 | 0 | 0 | 0 | 0 (0%) | 0 | (0%) |
| 77 | 1 | 675,000 | 775,000 | 725,000 (93%) | 100,000 | (100%) |
| 78 | 2 | 500,000 | 441,200 | 441,200 (100%) | 58,800 | (100%) |
| 79 | 3 | 2,366,300 | 2,177,800 | 1,463,100 (67%) | 1,881,500 | (100%) |
| 80 | 5 | 3,519,900 | 2,936,700 | 2,308,500 (78%) | 583,200 | (100%) |
| 81 | 5 | 2,255,200 | 2,977,500 | 2,800,800 (94%) | 277,700 | (93%) |
| 82 | 8 | 4,966,800 | 4,417,800 | 2,757,000 (62%) | 549,800 | (40%) |
| 83 | 10 | 5,921,000 | 4,363,500 | 1,417,600 (32%) | 1,557,500 | (15%) |
| TOTAL | 35 | 21,053,000 | 18,336,500 | 12,159,600 (66%) | 3,316,500 | (50%) |

AUTHORIZED FUNDING CONTRACT ALLLOCATED 85% INHOUSE REMAINING 15%

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
SUMMARY PROJECT STATUS REPORT
2ND SEMIANNUAL SUBMISSION CY 83 RCS DRCHT-301

| PROJ NO. | TITLE + STATUS | AUTHO- RIZED | CONTRACT VALUES | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|-----------|---|-----------------|--------------------|---|---|--|
| | | | | | | |
| | | (\$000) | (\$000) | (\$000) | | |
| R 00 3010 | MILLIMETER-WAVE SOURCES FOR 60, 94, AND 140 GHZ THE PILOT LINE RUN AT HUGHES DEMONSTRATED A 25 PCT YIELD FOR THE U, V, AND W-BAND IMPATT DIODES. A BREADBOARD HYBRID MODULATOR AND 94GHZ SOURCE WAS DELIVERED FROM TRW TO ERADCOM. ALL WORK HAS BEEN COMPLETED. FINAL 301 AND TECH RPT NOT YET RECEIVED. | 1,067.4 | 997.3 | 68.0 | JUL 82 | JUN 84 |
| R 03 3010 | HYBRID MODULATOR FOR PULSED IMPATT MILLIMETER WAVE SOURCES TRW HAS COMPLETED 3 HYBRID MODULATORS. THESE DEVICES DRIVE 10-WATT IMPATTS TO GENERATE 100 NANSECON SECOND 94GHZ PULSES. TWO UNITS HAVE SURVIVED SHOCK AND VIB TESTS. 110 IMPATTS HAVE BEEN RF TESTED AND SHOWN EXCELLENT PERFORMANCE. ENV AND QA TESTS ONGOING. | 363.0 | 363.0 | | SEP 84 | SEP 84 |
| R 02 3011 | INDIUM-PHOSPHIDE GUNN DEVICES VARIAN ASSOC DEVELOPED A RECESSED STRUCTURE IN WHICH THE GUNN DIODE IS FORMED. 56 GHZ DIODES CONTROL 1/4 WATT POWER AT 8 PCT EFFICIENCY. 94 GHZ DIODES ARE LESS CONSISTENT. TEST CAVITY NEEDS OPTIMIZATION. DETECTOR SENSITIVITY DEGRADES W/TIME. | 1,227.1 | 1,118.1 | 74.4 | AUG 84 | SEP 84 |
| R 00 3023 | TUBULAR PLASMA PANEL A DEMONSTRATION OF THE MILITARIZED PLASMA PANEL DISPLAY MANUFACTURING FACILITY WAS HELD IN JUNE. A ONE YEAR - NO COST CONTRACT EXTENSION WAS GRANTED TO ALLOW PRODUCTION DEMONSTRATION USING BCS AND MIFASS DISPLAYS. A DRAFT FINAL REPORT WAS SUBMITTED. | 800.0 | 674.0 | 95.0 | APR 82 | JUL 84 |
| R 00 3026 | HIGH PRESSURE OXIDE IC PROCESS HORIZONTAL FURNACE BUILT BY AUTOCULVE CO DID NOT PERFORM AS EXPECTED + \$200K IS NEEDED TO CONVERT TO VERTICAL. A MICROPROCESSOR CONTROLS HEATING, PRESSURIZING, OXIDIZING, ANNEALING, DEPRESSURIZING + COOLING. A GUARANTEE SHOULD BE ASKED OF AUTOCULVE. | 650.1 | 391.0 | 259.0 | MAY 82 | JUN 84 |
| R 00 3001 | THIRD GENERATION PHOTOCATHODE ON FIBER OPTIC FACEPLATE ITT ELECTRO OPTICS DIV CHANGED FROM LIQUID TO VAPOR PHASE EPITAXY OF GALLIUM ARSENIDE PHOTOCATHODE ON NEW FIBER OPTIC FACEPLATE. TEMPERATURE COEFFICIENT OF GALLIUM ARSENIDE + GLASS FIBER OPTICS MUST MATCH. BETTER BONDING + ANNEALING WILL BE TRIED. | 572.4 | 492.4 | 80.0 | MAR 82 | MAR 85 |
| R 01 3005 | HIGH CONTRAST CRT PHOSPHOR DEPOSITION AND SEALING HUGHES HAS COLLECTED DATA ON AN EXERCISER CRT WHICH WAS BUILT ON A DIFFERENT CONTRACT. IT HAS NOT BEEN TESTED UNDER ARMY APPLICATION CONDITIONS. SEVERE ARCHING THROUGH FRIT SEAL WAS EXPERIENCED. PROCUREMENT HAS INITIATED CONTRACT TERMINATION. | 350.4 | 349.6 | 0.8 | JUL 82 | |
| R 02 3005 | HIGH CONTRAST CRT PHOSPHOR DEPOSITION AND SEALING - PHASE II CONTRACT MODIFICATION OR TERMINATION OF THIS CONTRACT IS IN THE OFFING. HUGHES HAS NOT DELIVERED CONFIRMATORY CRTS IN PHASE I. | 286.0 | 229.8 | 56.2 | JUN 83 | |

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
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| PROJECT NO. | TITLE + STATUS | AUTHOR- RIZED | CONTRACT VALUES | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|-------------|---|------------------|--------------------|---|---|--|
| | | (\$000) | (\$000) | (\$000) | | |
| 82 5010 | BONDED GRID ELECTRON GUN VARIAN EXPERIENCED DIFFICULTY OBTAINING QUALITY BORON NITRIDE (BN) BLANKS FROM SUBCONTRACTOR. BN BLANKS OUTER PERIPHERY DELAMINATED DURING LASER MILLING. 1ST BONDED GRID GUN COMPLETED WAS TESTED IN BEAM ANALYZER. PERFORMANCE OF THIS GUN WAS MARGINAL. | 852.5 | 763.7 | 27.7 | MAR 84 | APR 85 |
| 82 5019 | LASER-CUT SUBSTRATES FOR MICROWAVE TUBES TEN S-BAND AND TEN C-BAND SLOW-WAVE STRUCTURES FOR USE IN IBCFA WERE DELIVERED TO ERADCOM FOR EVALUATION. FIVE OF EACH WERE RETAINED FOR NORTHROP EVALUATION. TWO OF EACH WILL BE USED IN CFA DESIGN AND EVALUATED. DRAFT FINAL RPT NOT YET ACCEPTABLE. | 431.5 | 390.5 | 41.0 | MAR 83 | JUN 84 |
| 83 5019 | LASER-CUT SUBSTRATES FOR MICROWAVE TUBES THE LASER-CUT ANODE CIRCUITS FROM PHASE 1 HAVE BEEN DESIGNED INTO THE IBCFA. THE GUN STRUCTURES AND WAVEGUIDE OUTPUT TRANSITION HAVE BEEN BUILT BUT NOT TESTED. 2 C-BAND AND 2 S-BAND CFA TUBES WILL BE BUILT. NO TECHNICAL OR ADMINISTRATIVE PROBLEMS SEEN. | 408.0 | 369.0 | 12.5 | NOV 84 | NOV 85 |
| 81 5041 | MILLIMETER WAVE MIXERS AND ARRAYS FUNDS ARE EXPIRED AND EXTENSION GRANTED. TWENTY W-BAND MIXERS ARE BEING ASSEMBLED. COMPLETION IS EXPECTED IN NEXT REPORTING PERIOD | 575.9 | 495.0 | 60.9 | JUL 83 | JUL 84 |
| 83 5007 | MMT EMF SOLID STATE AMPLIFIER A CONTRACTOR WILL IMPROVE FAB AND TEST PROCEDURES FOR SILICON IMPATT AMPLIFIERS. PROD AND TEST EQUIP WILL BE COMPUTER CONTROLLED. IMPATT AMPLIFIERS WILL BE USED IN THE SCOTT SATELLITE PKUG. BIOS WERE REVIEWED AND ADDITIONAL DATA REQUESTED. | 1,179.0 | | | SEP 85 | DEC 85 |
| 82 5109 | PRECISION LOW-COST SURF ACOUSTIC WAVE DELAY LINES-UHF APPL TRW IS BUILDING SAW DELAY LINES. 2ND ENGR SAMPLE EVALUATION + SYSTEM UPDATE RESULTED IN CHANGING DEVICE CENTER FREQUENCIES + MODE BANDWIDTHS. THIS PERMITTED FULL FREQUENCY COVERAGE BUT WITH HIGHER Q. MASK FABRICATION FOR MODIFIED DEVICES IS FINISHED. | 596.0 | 500.7 | 13.0 | MAY 85 | JUN 85 |
| 83 5109 | PRECISION LOW-COST SAW DELAY LINES FOR UHF APPLICATIONS PHASE II FOLLOW-ON TO ABOVE. TRW DEVELOPED AN RF WAFER PROBE + NEW COMPUTER ROUTINES WHICH REDUCED TEST TIMES FOR 2 INCH WAFER TO 59 MINUTES. SAW DEVICE YIELDS ARE ALSO PROVIDED AUTOMATICALLY. PILOT RUN WILL PROVE OUT MANUFACTURING TECHNIQUES. | 408.0 | 382.6 | | JUN 85 | JUN 85 |
| 80 5147 | HI RESISTIVITY POLYCRYSTALLINE SILICON HEMLOCK SEMICONDUCTOR CORP UPGRADED ITS REACTORS AND CHEMICAL FEEDSTOCK AND MADE HIGH PURITY POLYSILICON. TI AND HUGHES ZONED IT INTO ULTACTER GRADE SINGLE CRYSTAL. HEMLOCK SHIPPED 22 POUNDS OF 10K OHM-CM POLY TO HUGHES IN 40 MM DIA BOULES. | 430.0 | 382.0 | 48.0 | SEP 82 | JUN 84 |

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
SUMMARY PROJECT STATUS REPORT
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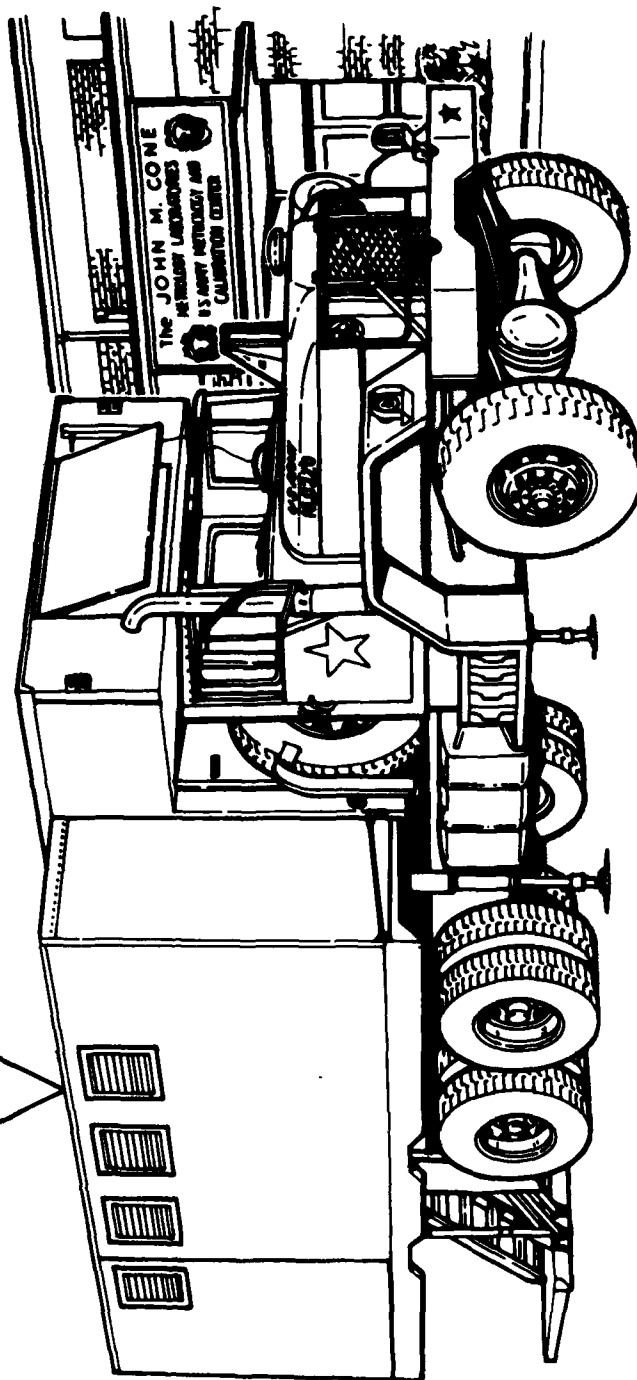
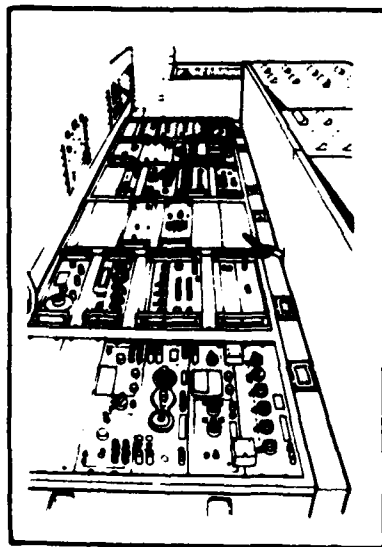
| PROJECT NO. | TITLE + STATUS | AUTHOR- RIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|-------------|--|-----------------------------|-------------------------------|---|---|--|
| | | | | | | |
| 03 0151 | LIQUID PHASE EPITAXY OF HCCUTE F/CUMMON MODULE DET ARRAYS SANTA BARBARA RESEARCH CTR IS REFINING ITS LIQUID PHASE REACTION PROCESS, AND IS DESIGNING EQUIP + FACILITIES FOR ITS 2ND PHASE \$1 MILLION EFFORT. TI DESIGNED + ORDERED EQUIPMENT FOR A LIQUID PHASE EPITAXIAL PILOT LINE. THIS SHOULD CUT COST. | 539.0 | 500.0 | 39.0 | DEC 85 | MAR 85 |
| 03 0162 | EXAM BATTERY MANUFACTURING TECHNOLOGY, PHASE 11 ***** DELINQUENT STATUS REPORT ***** | | | | | JUN 84 |
| 03 0160 | AUTOMATIC RETICLE INSPECTION SYSTEM, PHASE 1 KLA INSTRUMENTS IMPROVED THEIR OPTICS FOR HALF-MICRON RESOLUTION, USED A NEW LIGHT SOURCE AND SENSOR DESIGN, AND A NEW SIGNAL PROCESSING ALGORITHM FOR DIE TO DIE INSPECTION. KLA NOW MARKETS THIS NEW INSPECTION EQUIPMENT. A FINAL REPORT IS DUE 3/84. | 590.0 | 540.0 | 39.1 | SEP 85 | AUG 85 |
| 03 0174 | CAN SPUTTERING CONTROL FOR ZNU MARKY DIAMOND LABS IS ESTABLISHING AN AUTOMATIC SEMICONDUCTOR PROCESS MONITORING + CONTROL SYSTEM. MASS SPECTROMETER WAS DELIVERED BUT SEVERAL DEFECTS WERE FOUND. THE INSTRUMENT WAS RETURNED TO MANUFACTURER FOR REPAIR. GOAL WAS IMPROVED YIELDS. | 150.0 | | 81.0 | DEC 84 | DEC 84 |
| 01 0170 | PROGRAM FOR A GRAPHITE/EPOXY ANTENNA REFLECTOR ***** DELINQUENT STATUS REPORT ***** | | | | APR 82 | JUN 84 |
| 03 0180 | NMT FOR METAL DEWAR AND UNBUNDED LEADS AN INTERNAL DESIGN REVIEW OF THE NEW CUMMON MODULE DETECTOR/DEWAR HAS BEEN COMPLETED. CRITICAL LONG-LEAD ITEM AVAILABILITY REVIEWED. PRODUCTIBILITY ANALYSIS IS ON-GOING. COST DRIVERS ARE BEING IDENTIFIED. LEWAR SELECTION CRITERIA LIST IS DEFINED. | 1,391.0 | 1,315.9 | 75.0 | DEC 84 | JUN 84 |
| 02 0183 | PRODUCTION OF LARGE DIAMETER SILICON FOR LASER SEEKERS HUGHES IS AUTOMATING ITS 3 INCH ZONER BUILT BY WESTECH. A RECENTLY OPERABLE HF HEATING COIL AND RESISTIVITY MEASURING EQUIPMENT WERE RECEIVED. HUGHES GAVE A NO-COST EXTENSION BECAUSE OF LATE EQUIPMENT DELIVERY. NBS FOUND FLAWS IN MEASNT EQUIP. | 566.0 | 499.0 | 34.0 | JAN 84 | SEP 84 |
| 02 0193 | PROCESS ADJUSTMENTS F/ENVIRON STRESS ON ELECT CIRCUIT METALS THE CONTRACTOR CONTINUES TO COLLECT EXPOSURE DATA AT FIELD SITES. STATISTICAL CORRELATION BETWEEN OBSERVED CORROSION AND SPECIFIC ENVIRONMENTS IS BEING DERIVED. SIMULATED AGING TESTS ARE BEING DEvised AND VERIFIED. PROJECT ENGR GAVE TALK AT RIA. | 21.0 | 21.0 | | JUN 83 | JUN 84 |
| 03 0196 | INDUSTRIAL PRODUCTIVITY IMPROVEMENT - ELECTRONICS CECUM ANTICIPATES MANY DIFFICULTIES NEGOTIATING A BUSINESS DEAL IN THIS IMP CONTRACT. MONEY IS NEEDED AT CECUM TO MANAGE THIS WORK, ONLY 1/3 MAN-YEAR IS NOW BEING PROVIDED. HARRIS WILL STUDY 15 MMT PROJECTS AND A LARGE BUSINESS SYSTEM PROJECT. | 893.0 | 893.0 | | JUN 84 | JUN 84 |

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| PROJ NO. | TITLE + STATUS | AUTHO- RIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|----------|--|----------------------------|-------------------------------|---|---|--|
| | | | | | | |
| 81 9588 | THIRD GENERATION LOW COST IMAGE INTENSIFIER TUBES LITTON STILL IS EXPERIENCING LOW TUBE YIELDS. HOWEVER INCIDENCE OF EMISSION POINTS + VACUUM LEAKS HAS REDUCED. NEW VAPOR PHASE EPITAXIALLY GROWN PHOTOCATHODES HAVE SHOWN IMPROVED COSMETIC QUALITY. FIVE MORE CONFIRMATORY SAMPLES WERE SHIPPED. | 1,386.0 | 1,280.0 | 106.0 | JUN 84 | JUN 84 |
| 76 9736 | EPITAXIAL + METALLIZATION PROCESSES FOR GAAS IMPATT DIODES MACOM GA-AS PRODUCTS CO COMPLETED WORK ON AUTOMATIC CONTROL OF EPITAXIAL LAYER GROWTH + COMPUTERIZED CONTROL OF DOPANT GASES. MACOM MADE IMPATT DIODES FOR MICROWAVE SYSTEMS. FINAL REPORT IS BEING DISTRIBUTED. PROJECT WAS WRITTEN UP FOR TOP-TEN BOOK. | 248.8 | 247.0 | | JUN 77 | APR 84 |
| 75 9738 | PULSED GALLIUM ARSENIDE IMPATT DIODES MACOM GA-AS PRODUCTS CO DELIVERED 100 17 GHZ PULSED IMPATT DIODES FOR THE MULTI-ENVIRONMENT ACTIVE RF MISSILE SEEKER. AUTOMATED PROCESSING CONTROLS GIVE DIODE-TO-DIODE AND WAFER TO WAFER UNIFORMITY. IS A JOINT ERADCOM/MACOM EFFORT. A NEW SPEC WAS DEV | 500.0 | 441.2 | 58.8 | JUN 80 | MAY 84 |
| 77 9800 | AUTO MICROCIRCUIT BRIDGE PUN MEASURE OF QUARTZ CRYSTALS HUGHES DEVELOPED AN AUTOMATIC MICROCIRCUIT BRIDGE MEASUREMENT SET FOR MEASURING QUARTZ CRYSTAL PARAMETERS. SYSTEM REPLACES CRYSTAL IMPEDANCE METERS + HAS CAPABILITY OF MEASURING 25 CRYSTALS A DAY. RESULTANT TECHNIQUES WILL BE PLACED INTO MIL-C-3098. | 875.0 | 775.0 | 100.0 | JAN 79 | APR 84 |
| 79 9800 | QUARTZ CRYSTAL PARAMETER TESTING FULLUM-UN TO 2 77 9805. HUGHES INCREASED TESTING CAPACITY OF PREVIOUS SYSTEM TO 200 CRYSTALS PER DAY. MULTICRYSTAL TEMPERATURE CHAMBERS WERE ADDED FOR AUTOMATIC ACQUISITION OF FREQUENCY/TEMPERATURE + AGING DATA. | 725.0 | 685.0 | 40.0 | JUN 80 | APR 84 |
| 79 9807 | PROCESSING HIGH STABILITY QUARTZ CRYSTAL UNIT GENO PHASE III EFFORT EXPANDING PILOT LINE CAPABILITY OF H 77 9754 TO 5 + 10 MHZ QUARTZ CRYSTALS. CONFIRMATORY RUN WAS ABORTED DUE TO DEFECTIVE QUARTZ BLANKS. NEW QUARTZ BLANKS WERE RECEIVED + ARE UNDER EVALUATION. NEW CONFIRMATORY RUN SET FOR AUG84. | 1,272.1 | 1,214.1 | 58.0 | MAR 81 | FEB 85 |
| 79 9836 | MINIATURE CATHODE RAY TUBES CONFIRMATORY SAMPLES HAVE BEEN FABRICATED. FIVE OF THE 10 WERE SUBJECTED TO ALL ENVIRONMENTAL TESTS, EXCEPT EMI. AN ACCELERATED LIFE TEST PLAN IS BEING DRAFTED TO COMPENSATE FOR PAST SLIPPAGE. | 369.2 | 278.7 | 90.5 | AUG 81 | AUG 84 |
| 76 9860 | PUN TECHJE-GALLIUM ARSENIDE MIWAV FIELD EFFECT TRANSISTORS ===== DELINQUENT STATUS REPORT ===== | | | | NOV 80 | JUN 84 |
| 82 9700 | LOW-COST MONOLITHIC GALLIUM ARSENIDE MICROWAVE INTEG CIRCUITS WESTINGHOUSE DELIVERED FIRST SAMPLE CIRCUITS BUT THEY WERE NOT UP TO SPEC. ION IMPLANT USAGE + ANNEALING SCHEDULES WERE VARIED + TOPOLUGY WAS RECONFIGURED. 17 OF 30 PROCESS SPECS WERE WRITTEN. THE PERF SPECS ARE TOUGH AS IS THIS HF GA-AS WORK | 986.7 | 895.0 | 17.0 | SEP 84 | SEP 84 |

S U M M A R Y P R O J E C T S T A T U S R E P O R T
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| PROJ NO. | TITLE + STATUS | AUTHO- RIZED | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|-----------|--|-----------------|-------------------------------|---|---|--|
| | | | | | | |
| M 81 9909 | PRODUCTION TECHNIQUES FOR SILICON MW POWER TRANSISTORS COST INCREASE UP \$139K GRANTED. WITH AN AVERAGE YIELD OVER 70 PCT, 700 30-WATT S-B AND POWER TRANSISTORS CAN BE MADE FROM ONE WAFER. THREE PASSED RF OPERATIONAL LIFE TESTING AT 200DEG, 30-WATTS AND 1000 HRS. ONE FAILED. FAILURE ANALYSIS UNDERWAY. | 942.9 | 852.9 | 72.1 | SEP 83 | JAN 84 |



TEST MEASUREMENT DIAGNOSTIC EQUIPMENT SUPPORT GROUP (TMDE)

TEST MEASUREMENT DIAGNOSTIC EQUIPMENT SUPPORT GROUP

CURRENT FUNDING STATUS, 2ND CY83

| FISCAL YEAR | NO. OF PROJECTS | AUTHORIZED FUNDS (\$) | C O N T R A C T A L L O C A T E D (\$) | F U N D I N G E X P E N D E D (\$) | I N H O U S E R E M A I N I N G (\$) | F U N D I N G E X P E N D E D (\$) |
|-------------|-----------------|-----------------------|--|------------------------------------|--------------------------------------|------------------------------------|
| 80 | 1 | 756,000 | 499,000 | 499,000 (100%) | 257,000 | 257,000 (100%) |
| 81 | 0 | 0 | 0 | 0 (0%) | 0 | 0 (0%) |
| 82 | 1 | 450,000 | 95,000 | 72,000 (75%) | 355,000 | 212,000 (59%) |
| 83 | 1 | 240,000 | 170,000 | 170,000 (100%) | 70,000 | 70,000 (100%) |
| TOTAL | 3 | 1,446,000 | 764,000 | 741,000 (96%) | 682,000 | 539,000 (79%) |

AUTHORIZED FUNDING CONTRACT ALLOCATED 53% INHOUSE REMAINING 47%

SUMMARY PROJECT STATUS REPORT
2ND SEMIANNUAL SUBMISSION CY 83 RCS DRCMT-301

| PROJ NO. | TITLE + STATUS | AUTHORIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|--------------|--|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| 3 80 3115 | ENGINEERING FOR METROLOGY AND CALIBRATION SEE SUBTASKS FOR WORK STATUS. | 756.0 | 499.0 | 257.0 | DEC 81 | JUN 84 |
| 3 80 3115 01 | JOSEPHSON EFFECT VOLTAGE STANDARD WORK ON THIS SUBTASK IS CONTINUED UNDER 3 81 3115-01. | | | | DEC 81 | AUG 83 |
| 3 80 3115 14 | SIX-PORT MEASUREMENT SYSTEM THIS TASK HAS BEEN COMPLETED. | | | | DEC 81 | MAR 84 |
| 3 80 3115 17 | DYNAMIC ELECTRICAL MEASUREMENTS AND STANDARDS SEE PROJECT 3 82 3115-17 FOR WORK STATUS. | | | | DEC 81 | JAN 84 |
| 3 80 3115 19 | SUBMILLIMETER WAVE STANDARDS THIS TASK HAS BEEN COMPLETED. THIS SYSTEM IS NOW QUALIFIED AS A MEASUREMENT SYSTEM FOR USE IN CERTIFYING STANDARDS FOR ARMY PRIMARY CALIBRATION LABORATORIES. | | | | DEC 81 | MAR 84 |
| 3 80 3115 21 | ELECTRO-OPTICAL (E-O) SYSTEMS THIS TASK WAS CANCELLED DUE TO LACK OF FUNDING. | | | | DEC 81 | MAR 84 |
| 3 80 3115 24 | AUTO LAB CALIBR SERVICES USING DESK CAL/DESK TOP COMPUTERS WORK ON THIS SUBTASK IS CONTINUED UNDER 3 81 3115-24. | | | | DEC 81 | AUG 83 |
| 3 80 3115 25 | BASIC METROLOGY STANDARDS F/USE IN WIDE RANGING ENVIRONMENTS WORK ON THIS SUBTASK IS CONTINUED UNDER 3 81 3115-25. | | | | DEC 81 | AUG 83 |
| 3 82 3115 | ENGINEERING FOR METROLOGY AND CALIBRATION FOR STATUS, SEE SUBTASKS BELOW. | 450.0 | 95.0 | 212.0 | OCT 84 | JAN 84 |
| 3 82 3115 01 | JOSEPHSON EFFECT VOLTAGE STANDARD A ONE PPM VOLTAGE STANDARD WAS DELIVERED. PROBLEMS WERE ENCOUNTERED DURING INITIAL OPERATION OF THE SYSTEM. LIQUID NITROGEN USED TO PRECOOL THE DEWAR SOLIDIFIED AT THE BOTTOM OF DEWAR PREVENTING INSERTION OF THE JOSEPHSON JUNCTION PROBE. | | | | JUN 84 | JAN 84 |
| 3 82 3115 17 | DYNAMIC ELECTRICAL MEASUREMENT STANDARDS A MODULAR PULSE CIRCUIT IS PRESENTLY BEING EVALUATED. THE CIRCUIT PROMISES TO BE VERY VERSATILE SINCE IT CAN BE PULSE OPERATED, CONTINUOUSLY MODULATED, OR OPERATED IN A STATIC FORWARD BIASED MODE. | | | | JUN 84 | JAN 84 |
| 3 82 3115 25 | BASIC METROLOGY STD FOR USE IN WIDE-RANGING ENVIRONMENTS ADDITIONAL WIRING HAS BEEN INSTALLED SO THAT VOLTAGE OF REFERENCES PLACED IN AN ENVIRONMENTAL CHAMBER MAY BE MONITORED. THIS WILL BE USED TO MEASURE THE RESPONSE OF THE REFERENCE TO VARYING TEMPERATURE AND HUMIDITY CONDITIONS. | | | | JUN 84 | JAN 84 |

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
SUMMARY PROJECT STATUS REPORT
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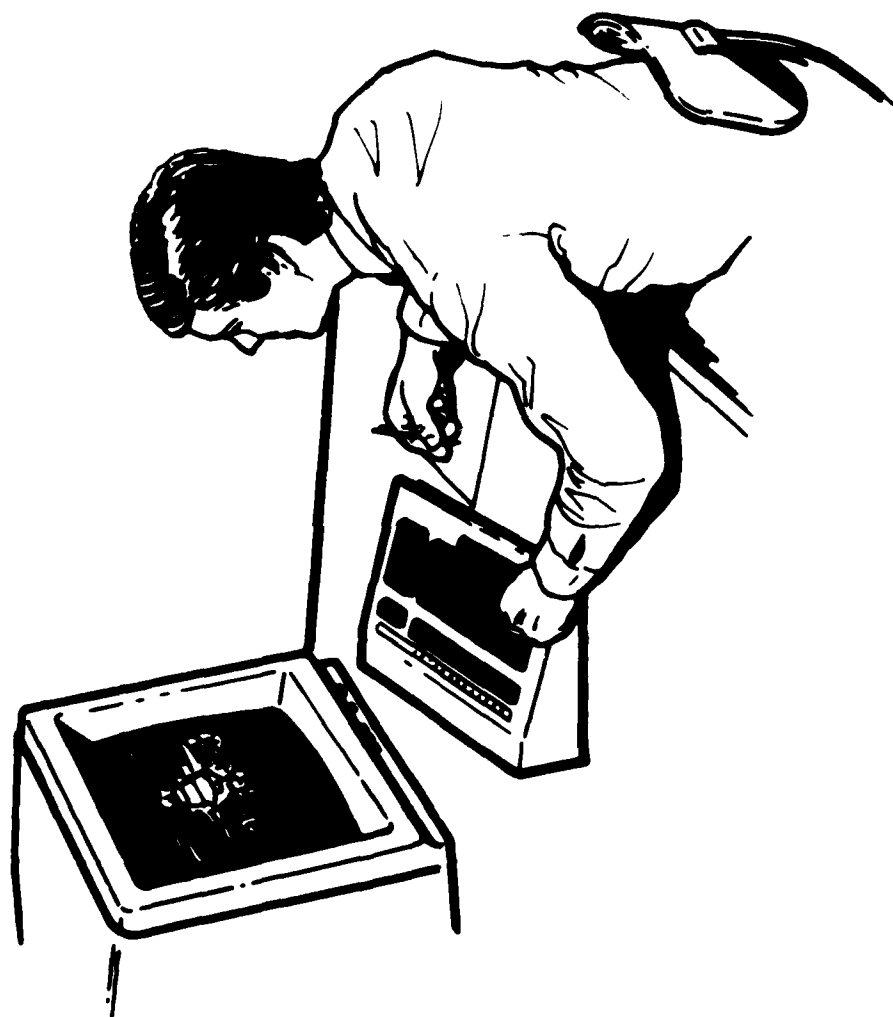
| PROJ NO. | TITLE + STATUS | AUTHORIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|--------------|--|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| 5 62 3115 34 | IMPROVED ON-SITE SERVICE AIR SPEED CALCULATIONS PRODUCED FROM THE OUTPUT OF A DIFFERENTIAL PRESSURE TRANSDUCER PASSED THROUGH A VOLTAGE TO FREQUENCY CONVERTER, COUNTER, AND MICROPROCESSOR HAVE BEEN COMPLETED. THIS SOFTWARE HAS BEEN COMMITTED TO EPROM FOR USE. | | | | JUL 83 | FEB 84 |
| 5 62 3115 35 | VISCOSITY AND DENSITY MEASUREMENTS REVIEW OF EXISTING INSTRUMENTATION SUITABLE FOR INCORPORATION INTO SECONDARY TRANSFER FLOWMETER TEST CONFIGURATIONS IS CONTINUING. | | | | APR 83 | FEB 85 |
| 5 62 3115 36 | DIRECT FLOWMETER READOUT THIS PROJECT WAS DELAYED DUE TO THE TRANSFER OF THE PROJECT LEADER. | | | | JAN 86 | SEP 86 |
| 5 62 3115 37 | DATA ANALYSIS TECHNIQUES DELAYS IN PROCUREMENT HAS CONTINUED TO CAUSE SLIPPAGE IN THIS PROJECT. THE PORTABLE MICROCOMPUTER TO BE FIELD TESTED STILL HAS NOT ARRIVED. | | | | JAN 83 | FEB 84 |
| 5 63 3115 | ENGINEERING FOR METROLOGY AND CALIBRATION FOR STATUS, SEE SULTASK LISTED BELOW. | 240.0 | 170.0 | 70.0 | DEC 84 | DEC 84 |
| 5 63 3115 01 | JOSEPHSON EFFECT VOLTAGE STANDARD TESTING OF IPPM VOLTAGE STANDARDS CONTINUED DURING THIS REPORTING PERIOD. PROBLEMS STILL EXIST IN THE PRODUCTION AND SELECTION OF APPROPRIATE JOSEPHSON-JUNCTION DEVICES. THE PROBLEMS ARE PECULIAR TO INDIV DEVICES AND MAY CAUSE NON-VERTICAL STEPS. | | | | DEC 84 | DEC 84 |
| 5 63 3115 25 | BASIC METROLOGY STD FOR USE IN WIDE-RANGING ENVIRONMENTS CHARACTERIZATION OF VARIOUS COMMERCIAL SOLID STATE VOLTAGE REFERENCES DEVICES CONTINUED USING THE AUTOMATED SYSTEM. IT HAS BEEN CONCLUDED FROM MEASUREMENTS MADE THUS FAR THAT A FILTER ON THE OUTPUT IS REQ IN ORDER TO ACHIEVE DEPENDABLE RESULTS. | | | | DEC 84 | DEC 84 |
| 5 63 3115 34 | IMPROVED ON-SITE SERVICE PROCUREMENT HAS STARTED ON AIR SPEED MODIFICATIONS. A QUANTITY OF DIFFERENTIAL PRESSURE TRANSDUCERS IS BEING PURCHASED. PORTIONS OF THE HYDRAULIC PRESSURE STANDARD WORK HAS BEEN COMPLETED. EVALUATION OF THE PRESSURE TRANSDUCERS IS UNDERWAY. | | | | DEC 84 | DEC 84 |
| 5 63 3115 35 | VISCOSITY AND DENSITY MEASUREMENTS THE PROJECT WAS DEFERRED FOR THIS REPORTING PERIOD AS THE PROJECT LEADER TRANSFERRED TO A NEW POSITION. | | | | FEB 85 | FEB 85 |

S U M M A R Y P R O J E C T S T A T U S R E P O R T
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Proj No. TITLE + STATUS

| AUTHORIZED | CONTRACT | EXPENDED | ORIGINAL | PRESENT |
|------------|----------------------------|-------------------------|-------------------------|-------------------------|
| VALUES | LABOR AND MATERIAL (\$000) | PROJECTED COMPLETE DATE | PROJECTED COMPLETE DATE | PROJECTED COMPLETE DATE |

| | | | | |
|-----------|---|--|--------|--------|
| 83 015 36 | DIRECT FLOWMETER READOUT ORIENTATED A NEW PROJECT AND TECHNIQUES INTEGRAL TO THE DESIGN CONCEPT TO BE UTILIZED IN THE DEVELOPMENT OF THIS PROJECT. | | SEP 86 | SEP 86 |
|-----------|---|--|--------|--------|



ARMY MATERIALS AND MECHANICS RESEARCH CENTER (AMMRC)

ARMY MATERIALS AND MECHANICS RESEARCH CENTER

CURRENT FUNDING STATUS, 2ND CY83

| FISCAL YEAR | NO. OF PROJECTS | AUTHORIZED FUNDS (\$) | CONTRACT FUNDS ALLOCATED (\$) | FUNDING EXPENDED (\$) | PERCENTAGE (%) | INFLUENCE REMAINING (\$) | PERCENTAGE (%) |
|-------------|-----------------|-----------------------|-------------------------------|-----------------------|----------------|--------------------------|----------------|
| 80 | 1 | 4,323,300 | 1,633,700 | 1,633,700 | (100%) | 2,689,600 | (100%) |
| 81 | 1 | 4,349,000 | 1,479,500 | 909,000 | (61%) | 2,069,500 | (95%) |
| 82 | 1 | 4,573,000 | 1,920,000 | 743,200 | (39%) | 2,053,000 | (65%) |
| 83 | 1 | 1,243,400 | 656,600 | 0 | (0%) | 586,800 | (100%) |
| TOTAL | 4 | 14,488,700 | 5,659,800 | 3,285,900 | (57%) | 8,798,900 | (93%) |

INFLUENCE REMAINING 60%

CONTRACT ALLOCATED 39%

AUTHORIZED FUNDING

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| PROJECT NO. | TITLE + STATUS | AUTHOR- RIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|----------------|--|-----------------------------|-------------------------------|---|---|--|
| | | | | | | |
| 1 80 6350 | MATERIALS TESTING TECHNOLOGY (MTT) FOR PROJECT STATUS, SEE SUBTASKS BELOW. | 4,323.3 | 1,633.7 | 2,689.6 | APR 83 | JUL 84 |
| 1 80 6350 2205 | MULTIGRAPHIC INSPECTION OF ROTARY FORGED PREFORMS THE DESIGN OF THE ELECTRONIC CARDS INCLUDING THE MASS MEMORY STORAGE CARD AND THE CHARGE COUPLED DEVICE ANALOG STORAGE SHIFT REGISTER HAVE BEEN COMPLETED AND DOCUMENTED IN TWO RPT TECHNICAL REPORTS. | 105.0 | 80.0 | | | DEC 83 |
| 1 80 6350 2402 | INSP PRUC-TEST INSTR F/MASS PRUD SCATTERABLE MINES COMPUTER ***** DELINQUENT STATUS REPORT ***** | | | | | JUN 84 |
| 1 80 6350 2405 | BURN TIME TEST FOR ZIRCONIUM POWDER IN THERMAL BATTERY THIS PROJECT HAS BEEN COMPLETED. | 70.0 | 17.0 | 53.0 | | MAR 84 |
| 1 80 6350 2445 | ULTRASOUND TIRE INSPECTION ***** DELINQUENT STATUS REPORT ***** | | | | | JUN 84 |
| 1 80 6350 2446 | BLACKLIGHT VIDEO INSPECTION SYSTEM THE CLOSED CIRCUIT VIDEO SYSTEM HAS BEEN PROCURED AND DELIVERED. IT HAS BEEN CHECKED OUT AND IS FUNCTIONING PROPERLY. | 35.0 | 10.0 | | JUN 83 | SEP 84 |
| 1 80 6350 2450 | GUN STEEL ADHESION CHROMIUM COATING MEASUREMENT CONSTRUCTION OF THE ADHESION TESTER WAS RECENTLY COMPLETED. THE DELIVERY OF THE SYSTEM IS SCHEDULED FOR NOV 1983. | 60.0 | 20.0 | 40.0 | | JUN 84 |
| 1 80 6350 2613 | INFLU AIR BLEED TEST, LTC-712 ENGINE THIS EFFORT HAS BEEN DISCONTINUED DUE TO THE NON-AVAILABILITY HARDWARE AND ENGINE CONFIGURATION CHANGES. THE RESULTS OF THE PROJECT TO DATA WILL BE USED TO SUPPORT ENGINE ENDURANCE TESTS AND PARTS QUALIFICATION. | 267.0 | | 120.3 | | JAN 84 |
| 1 80 6350 2614 | TEMP. COMPENSATED VOLTAGE CONT CRYSTAL OSCILLATOR TEST METH. ***** DELINQUENT STATUS REPORT ***** | | | | | JUN 84 |
| 1 80 6350 2627 | INFRARED SPECTROSCOPY ANALYSIS OF NON-VOLATILE VEHICLES ***** DELINQUENT STATUS REPORT ***** | | | | APR 81 | JUN 84 |
| 1 80 6350 2632 | DEVELOPMENT OF INFRARED AND OPTICAL TESTS ***** DELINQUENT STATUS REPORT ***** | | | | DEC 81 | JUN 84 |
| 1 80 6350 2646 | PISTON ACTUATOR TEST THE ASSEMBLY OF THE SYSTEM HAS BEEN COMPLETED. THE SYSTEM HAS BEEN CALIBRATED AND 100 PISTON ACTUATORS HAVE BEEN TESTED. THE FINAL REPORT IS IN THE PROCESS OF BEING WRITTEN. | 85.0 | | 85.0 | | JUN 84 |

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| PAJ NO. | TITLE + STATUS | AUTHOR- RIZED | CONTRACT VALUES | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|--------------|---|------------------|--------------------|---|---|--|
| | | (\$000) | (\$000) | (\$000) | | |
| 01 0350 | MATERIALS TESTING TECHNOLOGY (MTT) FOR PROJECT STATUS, SEE SUBTASKS BELOW. | 4,349.0 | 1,479.5 | 2,720.2 | UCT 83 | UCT 84 |
| 01 0350 1802 | 4732 FIELD ARTILLERY FUZE/5-A TRANSPORTATION VIBRATION TEST THE TECHNICAL WORK AND FINAL REPORT HAVE BEEN COMPLETED. THE RESULTS OF THIS EFFORT WILL REDUCE THE TEST TIME FROM SIX HOURS TO TWO HOURS. | 103.2 | | 103.2 | | NOV 83 |
| 01 0350 2224 | AUTOMATED ANTENNA PATTERN MEASUREMENT THE FABRICATION AND TESTING OF COMPUTER INTERFACES AND THE IR INTEGRATION INTO THE MEASUREMENT SYSTEM IS NEAR COMPLETION. THE MIT FUNDS HAVE BEEN EXHAUSTED. CURRENTLY THE PROJECT IS BEING CONTINUED USING PATRIOT PROJECT FUNDS. | 65.0 | | 65.0 | | JUN 84 |
| 01 0350 2401 | CANNON TUBE AUTOMATIC MAGNETIC BORESCOPE INSPECTION THE MAGNETIC RECORDING BORESCOPE HAS BEEN SENT TO THE VENDOR FOR REPAIRS. SEVERAL PROBLEM AREAS HAVE BEEN IDENTIFIED. LOOSE MECHANICAL CONNECTIONS, BROKEN WIRES AND STRAY ROTATIONAL SIGNALS ARE BEING IMPRESSED ON THE DETECTION SIGNAL CIRCUITS. | | | | | SEP 83 |
| 01 0350 2409 | EMISSION SPECTROGRAPH ANAL MARAGING STEEL PLASMA EXCITATION ***** DELINQUENT STATUS REPORT ***** | | | | | JUN 84 |
| 01 0350 2420 | OPTICAL AND DIG STANDARDS AND MEASURING SYSTEM THE NBS INSTR FOR MEASURING ANGULAR SCATTER IS CURRENTLY ON LINE AND MEASUREMENTS HAVE BEEN MADE ON THE FIRST GENERATION SCRATCH SAMPLES. | 252.0 | 200.0 | 52.0 | | JUN 84 |
| 01 0350 2603 | PROVIDE AUTO SPHERICITY INTERFEROMETER F/TEST LENS SURFACES THE TECHNICAL WORK HAS BEEN COMPLETED. THE FINAL REPORT IS SCHEDULED FOR COMPLETION IN FEB 1984. | 110.0 | 37.7 | 59.9 | | JAN 84 |
| 01 0350 2604 | NEW COMPATIBILITY TEST METHOD FOR EXPLOSIVE SYSTEMS THE PROJECT HAS BEEN COMPLETED. THE FINAL REPORT IS IN THE PROCESS OF BEING WRITTEN AND IS SCHEDULED FOR COMPLETION IN MARCH 1984. | 45.0 | | 45.0 | | JAN 84 |
| 01 0350 2631 | CRITICAL ELECTROMAGNETIC INSP PROBLEMS WITHIN THE ARMY COMPLETED THE EVALUATION OF THE EDDY CURRENT INST FOR MEASURING CASE DEPTH OF CARBURIZED GEARS. THE RESULTS OF THIS EVALUATION ARE CONSIDERED NEGATIVE. THEREFORE, IMPLEMENTATION IS NOT APPROPRIATE. | 67.0 | | 67.0 | | MAR 84 |
| 01 0350 2633 | FOURIER TRANSFORM IR TECHNIQUES FOR QC OF PREPREG SYSTEM ***** DELINQUENT STATUS REPORT ***** | | | | | |

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| PROJECT NO. | TITLE + STATUS | AUTHO- RIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDITURE LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|--------------|---|----------------------------|-------------------------------|---|---|--|
| | | | | | | |
| 01 0350 2639 | ROADWHEEL SEAL TEST MACHINE THE IN-HOUSE FABRICATION OF THE ROAD SEAL TEST MACHINE IS IN-PROCESS. | | | | | JUN 84 |
| 01 0350 2642 | ADVANCED PENETRATING RADIATION TECH F/PRODUCT EVALUATION THE EVALUATION OF THE GAMMA-GAUGING EQUIPMENT WAS COMPLETED. A NEGATIVE FINDING CONCERNING THE APPLICABILITY OF THE EQUIPMENT IS CONTAINED IN THE FINAL REPORT. | 75.0 | | 67.0 | | JUN 84 |
| 01 0350 2600 | THERMAL + DYNAMIC MECH CHAR-PREPREG AGING AND CURE BEHAVIOR ===== DELINQUENT STATUS REPORT ===== | | | | | JUN 84 |
| 01 0350 2802 | PIROTECHNIC INGREDIENT ACCEPTANCE TESTING SEE PROJECT NO M 82 0350-2802 FOR STATUS. | | | | JUN 83 | JAN 84 |
| 01 0350 2803 | AUTO MEAS OF STRENGTH + OXIDE LIMITING FLAWS IN CERAMIC TURB ===== DELINQUENT STATUS REPORT ===== | | | | AUG 83 | JUN 84 |
| 01 0350 2804 | BINARY MUNITIONS MECHANICAL RUPTURE PROPERTIES TEST THE PROTOTYPE APPARATUS HAS BEEN COMPLETED. THE CONTRACTOR IS PROCEEDING WITH THE FABRICATION. THE FINAL DRAWINGS AND INSTRUMENTATION MANUAL IS NEARING COMPLETION. | 306.0 | 281.0 | 25.0 | | APR 84 |
| 01 0350 2806 | ADVANCED NOT OF REINFORCED PLASTIC COMPOSITES-SPAR + BEAM ===== DELINQUENT STATUS REPORT ===== | | | | | JUN 84 |
| 01 0350 2811 | M42/M46 MAGNETIC FLUX LEAKAGE INSPECTION FABRICATION OF THE SYSTEM IS APPROXIMATELY 90 PCT COMPLETE. THE SYSTEM WILL BE IMPLEMENTED ON THE NEW M42/M46 GRENADE CONTRACTS. THE PROTOTYPE DEVELOPED BY THIS EFFORT WILL BE INSTALLED IN ONE OF THE EXISTING MANUFACTURERS PLANTS. | 224.0 | 197.0 | 27.0 | | DEC 84 |
| 01 0350 2813 | ADAPTION KIT FUNCTION EMBEDDED MICROPROCESSOR TESTING SEE PROJECT NO M 82 0350-2813 FOR STATUS. | | | | | JAN 84 |
| 01 0350 2815 | CANNON TUBE AUTOMATED CHROME PLATE THICKNESS MEASUREMENT ONE RFP REPLY WAS RECEIVED. COST DATA WAS PROVIDED BY THE SOLE BIDDER. BASED ON A PREVIOUS AUDIT, THIS DATA WAS NOT ACCEPTABLE. AS A RESULT THE CONTRACT WAS NOT AWARDED. | 69.6 | | 58.5 | OCT 82 | APR 83 |
| 01 0350 2817 | FIBER OPTIC CABLE ASSEMBLIES TEST CRITERIA DEVELOPMENT ===== DELINQUENT STATUS REPORT ===== | | | | | JUN 84 |
| 01 0350 2829 | DETECTOR WEAR MICROPHICS PROD TEST SET + PROCEDURES THE TEST STATION DESIGN HAS BEEN COMPLETED. THE TEST STATION COMPONENTS WERE ORDERED AND ASSEMBLED. FINAL ASSEMBLY AND CHECK OUT IS SCHEDULED FOR DEC 1983. | 210.0 | | | | |

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| PROJ NO. | TITLE + STATUS | AUTHO- RIZED | CONTRACT VALUES | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|-----------|--|-----------------|--------------------|---|---|--|
| | | | | | | |
| 0350 2058 | STRESS READING TRANSDUCER FOR LARGE COMPOSITE COMPONENTS COMPLETED THE DATA COLLECTION ACTIVITY. CORRELATION STUDIES ARE UNDERWAY. | 75.0 | 75.0 | 75.0 | DEC 82 | MAR 84 |
| 0350 2943 | DEPLETED URANIUM KE PENETRATORS ULTRASONIC INSP PROCEDURES THE TECHNICAL WORK FOR THIS EFFORT HAS BEEN COMPLETED. THE FINAL REPORT IS IN THE PROCESS OF BEING WRITTEN. THE FINAL REPORT IS SCHEDULED TO BE RELEASED FEB 28, 1984. | 75.0 | 75.0 | 75.0 | DEC 82 | JAN 84 |
| 0350 2944 | PROTECTIVE MASK CANISTER ELECTROMAGNETIC INSP PROCEDURES THE EDDY CURRENT TEST EQUIPMENT HAS BEEN FABRICATED, TESTED, INSTALLED, AND DEMONSTRATED. THE CONTRACTOR PROVIDED ON-SITE TRAINING TO GOVERNMENT PERSONNEL ON THE OPERATION OF THE CANISTER TESTER. | 85.0 | 85.0 | 80.0 | DEC 82 | DEC 83 |
| 0350 2945 | QA OF COMPUTERIZED INSPECTIO, EQUIPMENT SOFTWARE A MULTI-USER MICROPROCESSOR SYSTEM PURCHASED FOR THIS WORK WILL BE USED IN THE DEVELOPMENT OF THE LIBRARY PROCEDURES. EVALUATION OF APPROPRIATE SOFTWARE TO PERFORM THIS FUNCTION HAS BEGUN UN ALTERNATE EQUIP PRIOR TO THE DELIVERY OF THE MICRO-SYSTEM. | 125.0 | 125.0 | 125.0 | NOV 82 | DEC 83 |
| 0350 2947 | MOBILITY MONITORING SYSTEM (MMS) A 4 CHANNEL COMPUTER CONTROLLED SIGNAL CONDITIONING MODULE HAS BEEN COMPLETED. ALSO, THE DATA ACQUISITION UNIT (DAU) HAS BEEN CONSTRUCTED. THE DAU IS PRESENTLY UNDERGOING HARDWARE/SOFTWARE INTEGRATION AND LABORATORY TESTING. | 10.0 | 9.0 | 9.0 | DEC 84 | JUN 84 |
| 0350 2977 | IMAGE INTENSIFIER SYSTEM VEILING CLARE TESTER THE CONTRACT WAS AWARDED 20 SEP 83. THE SYSTEM DESIGN IS UNDERWAY. | 63.4 | 53.4 | 53.4 | JUN 84 | NOV 84 |
| 0350 | MATERIALS TESTING TECHNOLOGY (MTT) FOR PROJECT STATUS, SEE SUBTASKS BELOW. | 4,573.0 | 1,920.0 | 2,227.5 | DEC 84 | JUL 84 |
| 0350 2235 | ACOUSTIC EMISSION WELD MONITOR PRELIMINARY RESULTS OF THE LIMA ARMY TANK PLANT TEST HAVE SHOWN GOOD CORRELATION WITH X-RAY AND ULTRASONIC NOT METHODS. WELD ENGINEERS AT GD HAVE EXPRESSED INTEREST IN USING THE AEM TO RESEARCH POST WELD CRACKING. | 185.0 | 185.0 | 185.0 | NOV 84 | NOV 84 |
| 0350 2245 | CERAMIC MATL NOT EVALUATION TECHNIQUES EVALUATED THE RADIOMETRIC GAGING SYSTEM DEVELOPED FOR MEASURING OF LOCAL DENSITY GRADIENTS, CHEMICAL VARIABILITY OR THICKNESS OF MATERIALS. IT WAS CONCLUDED THAT THIS SYSTEM PERFORMANCE IS NOT AN IMPROVEMENT OVER FILM RADIOGRAPHY. | 100.0 | 60.0 | 13.0 | APR 82 | JUN 84 |

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| NO. | TITLE & STATUS | AUTHORIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|--------------|---|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| 02 0350 2424 | AUTOMATIC GEAR TOOTH CONTOUR INSPECTION SYSTEM THE ENGINEERING DRAWINGS HAVE BEEN COMPLETED. ALL THE COMPONENTS HAVE BEEN PROCURED AND DELIVERED. FABRICATION IS 98 PCT COMPLETE AND SOFTWARE ENGINEERING/DOCUMENTATION IS 95 PCT COMPLETE. THE PROJECT IS BEING TERMINATED DUE TO LACK OF FUNDS. | 141.2 | 81.2 | 26.8 | JUN 83 | JAN 84 |
| 02 0350 2448 | IMPROVED G8 SIMULANT FOR LIFE TESTING OF CHARCOAL FILTERS THE CANISTER TESTING TO VERIFY THE CORRELATION FOR EACH SIMULANT HAS BEEN COMPLETED. A SERIES OF MILL CANISTERS WERE CHALLENGED WITH EACH SIMULANT AND THEN REGENERATED. AFTER REGENERATION THEY WERE SENT TO EDGEMOOD TO DETERMINE THE RESIDUAL EFFECT. | 100.0 | 100.0 | 100.0 | SEP 83 | SEP 83 |
| 02 0350 2611 | SORPTION OF AGENTS ON ASC WHEATLERITE SEE PROJECT NO M 83 0350-2611 FOR STATUS. | 92.9 | 20.9 | 49.1 | MAR 84 | MAR 84 |
| 02 0350 2630 | CRITICAL ULTRASONIC INSPECTION PROBLEMS WITHIN THE ARMY THIS TASK HAS BEEN COMPLETED. | 92.5 | | | JUN 83 | MAR 84 |
| 02 0350 2640 | TRACK TEST MACHINE ALL THE COMPONENT PARTS HAVE BEEN COMPLETED. ALL DRAWINGS ARE APPROXIMATELY 98 PERCENT COMPLETED. | 70.0 | | 70.0 | JUL 83 | JUL 83 |
| 02 0350 2695 | ACCEPTANCE TEST FOR 20MM DECLUTCHING FEEDERS ON PROD CONTR THIS PROJECT HAS BEEN CANCELLED DUE TO THE SEVERE FUNDING REDUCTION BY JAKCOM. THE FINAL REPORT HAS BEEN PUBLISHED. | 75.0 | | 75.0 | JUN 83 | JAN 84 |
| 02 0350 2801 | NEW PROPELLANT SURVEILLANCE TEST THE TECHNICAL WORK HAS BEEN COMPLETED. THE FINAL REPORT IS IN THE PROCESS OF BEING PREPARED AND IS SCHEDULED FOR COMPLETION IN MARCH 1984. | 40.0 | | 40.0 | JUL 83 | JAN 84 |
| 02 0350 2802 | PYROTECHNIC INGREDIENT ACCEPTANCE TEST THIS PROJECT HAS BEEN COMPLETED. THE TECHNICAL REPORT IS IN THE PROCESS OF BEING WRITTEN AND IS SCHEDULED FOR PUBLICATION MARCH 1984. | 105.0 | 65.0 | 20.0 | FEB 84 | DEC 84 |
| 02 0350 2804 | BINARY MUNITIONS MECHANICAL RUPTURE PROPERTIES TEST THE CONTRACTOR COMPLETED SUBCONTRACT ACTIONS RELATING TO THE ELECTRONICS-SYSTEM. DRAWINGS FOR ALL FABRICATED PARTS WERE ESSENTIALLY COMPLETED. | | | | | |
| 02 0350 2811 | M42/M46 MAGNETIC FLUX LEAKAGE INSPECTION THE APPLICATIONS TEST (PHASE II) CONTRACT WAS AWARDED TO NI INDUSTRIES 30 SEPT 1983. | | | | | |

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| PROJ NO. | TITLE + STATUS | AUTHOR- RIZED | CONTRACT VALUES | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|--------------|---|------------------|--------------------|---|---|--|
| | | (\$000) | (\$000) | (\$000) | | |
| 02 0350 2013 | ADAPTION KIT FUNCTION EMBEDDED MICROPROCESSOR TESTING THE PROJECT HAS BEEN COMPLETED. THE TECHNICAL DATA PACKAGE IS COMPLETE. THE OPERATING INSTRUCTIONS AND THE DRAWINGS ARE FINISHED. SOFTWARE PROGRAMS ARE FINISHED, INCLUDING AN OPERATING SYSTEM BACKUP. THE RESULTS WILL BE USED ON PERSHING II AK TESTS. | 615.5 | 615.5 | | APR 84 | JAN 84 |
| 02 0350 2020 | INTEGRATED FOCAL PLANE MODULE TEST STATION THE SAMPLE AND HOLD CIRCUITRY FOR FATS WAS TESTED. THE RS4000 WAS INTERFACED TO THE LEVEL SHIFTER. THE GAIN OF THE CCD OUTPUT AMPLIFIER WAS SUCCESSFULLY MEASURED USING FATS. SOFTWARE WAS DESIGNED AND WRITTEN TO STORE CCD TEST DATA. | | | | | APR 84 |
| 02 0350 2026 | LIN CHROMATOGRAPHIC ANALYSIS-NITROCELLULOSE BASE PROPELLANTS THE COMPUTER OPERATING PROCEDURES WERE MODIFIED. SEVERAL PROPELLANT SAMPLES WERE ANALYZED. SEVERAL SAMPLES WERE ANALYZED USING BOTH THE GAS + LIQUID CHROMATOGRAPHY TECHNIQUES WHICH WILL ALLOW A COMPARISON OF THESE TECHNIQUES. | 80.0 | | 50.3 | | JUL 84 |
| 02 0350 2034 | IMPROVED TRACK PIN SHOT PEENING INSPECTION SEE PROJECT NO M 83 0350-2834 FOR STATUS. | | | | AUG 84 | JUN 84 |
| 02 0350 2041 | STANDARDIZATION OF FRACTURE TOUGHNESS TESTS ***** DELINQUENT STATUS REPORT ***** | | | | | JUN 84 |
| 02 0350 2044 | MEASURING PROJECTILE RESISTANCE TO FREE FALL IMPACT SEE PROJECT NO M 83 0350-2844 FOR STATUS. | | | | OCT 83 | OCT 84 |
| 02 0350 2076 | PROTOTYPE INFRARED SEEKER AND AUTO PILOT TESTING AN AD-10 DIGITAL ARRAY PROCESSOR WAS PURCHASED AND CHECK-OUT. INITIAL EFFORTS TO INTERFACE UPDATED EXISTING HARDWARE/SOFTWARE AND IR SCENE GENERATOR INTERFACE SOFTWARE WITH THE AD-10 PROCESSOR WERE COMPLETED. | 310.0 | 280.0 | 30.0 | | JEP 84 |
| 02 0350 2078 | STRAIGHTENING OF GUN TUBE FORGINGS BY MEANS OF EMAT A CONTRACT WAS AWARDED FOR THE PURCHASE OF THE PRESSES. | 63.0 | | 42.0 | JUN 86 | JUN 85 |
| 02 0350 2080 | STRAIN TEMP DEPN + SCAT MEAS TECH + EQUIP FOR LASER RUD EVAL ***** DELINQUENT STATUS REPORT ***** | | | | MAY 84 | JUN 84 |
| 02 0350 2081 | DYNAMIC LASER RUD EVALUATION ***** DELINQUENT STATUS REPORT ***** | | | | MAY 84 | JEP 84 |
| 02 0350 2082 | NUCLEAR MAG RESONANCE TEST FOR DETM MOISTURE IN COMPOSITES FABRICATION OF THE NMR SYSTEM IS NEARLY COMPLETED. ALL OF THE INDIVIDUAL ELECTRONIC COMPONENTS HAVE BEEN CONSTRUCTED AND TESTED. FINAL ASSEMBLY OF THE ENTIRE SYSTEM IS IN PROGRESS AND IS EXPECTED TO BE COMPLETED BY DECEMBER 1983. | 80.0 | 60.0 | | JUL 85 | JUL 84 |

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| PROJ NO. | TITLE & STATUS | AUTH- RIZED | CONTRACT VALUES | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|--------------|--|----------------|--------------------|---|---|--|
| | | (\$000) | (\$000) | (\$000) | | |
| 02 0350 2800 | AUTO REFORMATTING LP ATE LANG FOR TESTING SEMICONDUCTORS THE TECHNICAL WORK HAS BEEN SUCCESSFULLY COMPLETED AND THE FINAL REPORT HAS BEEN COMPLETED. THE RESULTS OF THIS EFFORT WILL REDUCE THE HIGH COST AND TIME DELAY CAUSED BY THE PRESENT PRACTICE OF ANNUAL CONV OF TEST SOFTWARE FOR SCREENING MIL DEVICES. | 144.0 | 144.0 | | DEC 82 | MAY 83 |
| 02 0350 2807 | SIMULANT PERMEATION TESTING OF PROTECTIVE CLOTHING A COMPUTER SEARCH FOR CANDIDATE SIMULANTS WAS USED TO SCREEN 225,000 COMPOUNDS. THE LIST OF CANDIDATE COMPOUNDS HAS BEEN REDUCED TO 12. IT WAS DECIDED THAT THE CONTRACTOR SHOULD START PHASE II WITH THE 12 CANDIDATE COMPOUNDS. | 122.0 | | 27.5 | JUN 83 | MAR 84 |
| 02 0350 2809 | PROCEDURES FOR INSPECTING & MONITORING THERMOPLASTIC RESINS PARTIAL DRAFT OF AN ASTM TEST METHOD FOR DETERMINING THE MM'S AND MM'S OF THERMOPLASTIC RESINS USING HIGH PERFORMANCE SIZE-EXCLUSION CHROMATOGRAPHY WAS PREPARED. | 49.0 | | | JUN 85 | JUN 86 |
| 02 0350 2891 | MIL CODE MATERIAL SCREENING TEST THE CONTRACT WAS AWARDED TO HONEYWELL. EFFORTS ARE UNDERWAY TO MODIFY THE CURRENT SETUP FOR GREATER EFFICIENCY, HIGHER THRU-PUT AND MORE COMPACT SPACE UTILIZATION. | 175.0 | 155.0 | 8.9 | DEC 84 | DEC 85 |
| 02 0350 2892 | REMITE IMAGING OF PREFORM DEFECTS BY COMPUTER CONTROL THE CONTRACT FOR THE SYSTEM WAS AWARDED. | 85.0 | 60.0 | 23.4 | DEC 83 | JUL 84 |
| 02 0350 2894 | RESIDUAL STRESS DETERMINATION BY ACOUSTIC WAVE VELOCITY SEE PROJECT NO M 83 6350-2894 FOR STATUS. | 41.5 | | 41.5 | FEB 83 | JAN 84 |
| 02 0350 2896 | STANDARDIZED SOFTWARE TEST FACILITIES SEE PROJECT M 83 6350-2896 FOR STATUS. | 466.0 | 220.0 | 85.5 | AUG 84 | SEP 85 |
| 02 0350 2897 | STANDARD MONITORS TO INCREASE SOFTWARE TESTABILITY SEE PROJECT M 83 6350-2897 FOR STATUS. | | | | DEC 85 | SEP 86 |
| 02 0350 2901 | LASER AIMING DEVICE CONTRACT WAS AWARDED TO DECILG, INCORPORATED. THE PRELIMINARY CONCEPT DESIGN HAS BEEN APPROVED. IT INCORPORATES A MEASUREMENT APPROACH USING AN ELECTRONIC AUTOCOLLIMATOR. THIS INVOLVES MOUNTING INSTR ON A VERY STABLE PEDESTAL. | 154.2 | 119.2 | 35.0 | AUG 84 | FEB 85 |
| 02 0350 2913 | IMPROVED METHODOLOGY FOR GENERATION OF TOXIC CHEM AGENTS THIS EFFORT HAS BEEN COMPLETED. THE FINAL TECHNICAL REPORT WILL BE COMPLETED IN FEB 1984. | 78.6 | 58.6 | 11.4 | SEP 84 | SEP 85 |
| 02 0350 2916 | AUTOMATING DEPOT REBUILD COMPONENT DIMENSIONAL INSPECTION THE MODULAR DESIGN DEFINITION IS COMPLETE AND APPROVED. THE HOST COMPUTER HAS BEEN PROCURED IN ORDER TO EFFECTIVELY BEGIN DEVELOPMENT OF THE HARDWARE/SOFTWARE CONFIGURATION WHICH WILL BE USED IN THE FINAL SYSTEM. | 200.0 | | | JUN 85 | |

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|--------------|---|----------------------------|-------------------------------|---|---|--|
| | | | | | | |
| 02 0350 2919 | AUTL RESIDUAL STRESS INSP OF GUN TUBES + OTHER RELATED COMP TECHNICAL SPECIFICATIONS HAVE BEEN PREPARED. THE CONTRACT HAS NOT BEEN AWARDED. TENTATIVE DATE OF AWARD IS SCHEDULED FOR DECEMBER 1983. | 120.0 | 96.0 | 22.2 | NOV 83 | DEC 84 |
| 02 0350 2938 | EUDY CURRENT CRACK INSPEC PROCEDURE F/BURE EVACUATOR HOLES THE FABRICATION OF THE BURE EVACUATOR HOLE TEST SPECIMENS WERE COMPLETED. BOTH ABSOLUTE AND DIFFERENTIAL HOLE PROBES WERE EVALUATED UNDER SINGLE FREQUENCY EXCITATION. | 54.0 | 4.0 | 34.0 | MAR 83 | MAR 84 |
| 02 0350 2945 | QA OF COMPUTERIZED INSPECTION EQUIPMENT SOFTWARE THIS EFFORT HAS BEEN COMPLETED. THE FINAL REPORT IS BEING WRITTEN. IT IS SCHEDULED TO BE COMPLETED BY 30 APRIL 1984. | 120.0 | 60.0 | 60.0 | JUN 83 | DEC 83 |
| 02 0350 2950 | ELECTRICALLY CONDUCTIVE ADHESIVES FOR HIGH STABILITY W R B THE FINAL REPORT IS BEING PREPARED. THE REPORT WILL BE COMPLETED IN JAN 1984. | 77.0 | 77.0 | | JUN 83 | JAN 84 |
| 02 0350 2951 | AN/PR-8 MINE DETECTOR PRODUCTION TEST SET ***** DELINQUENT STATUS REPORT ***** | | | | MAR 83 | JUN 84 |
| 03 0350 | MATERIALS TESTING TECHNOLOGY (MTT) FOR PROJECT STATUS, SEE SUBTASKS BELOW. | 1,243.4 | 656.6 | 586.8 | | DEC 84 |
| 03 0350 2448 | IMPROVED GR SIMULANT FOR LIFE TESTING OF CHARCOAL FILTERS SEE PROJECT NO. M 82 6350-2448 FOR STATUS. | | | | | APR 84 |
| 03 0350 2611 | AUPTION OF AGENTS UN ASC WHETLERITE AUPTION ISOTHERMS WERE DETERMINED FOR ASC WHETLERITE CHARCOAL AT FOUR LEVELS OF IMPREGNATION, FOR A PRODUCTION LOT OF IMPREGNATED CHARCOAL, AND FOR A STANDARD CHARCOAL OF KNOWN SURFACE AREA USING TWO INDEPENDENT METHODS. | 4.0 | | 4.0 | DEC 83 | JAN 84 |
| 03 0350 2642 | ADVAN PENETRATING RADIATION TECH FOR PRODUCT EVALUATION SPEED AND SENSITIVITY OF LOW SILVER FILMS HAVE BEEN COMPARED WITH CONVENTIONAL INDUSTRIAL RADIOGRAPHIC FILM. EXPOSED CURVES ARE BEING EVALUATED FOR THE FILMS. | 46.8 | | 46.8 | | JUN 84 |
| 03 0350 2848 | ASSESS OF PROOF TEST DAMAGE OF COMPONENT MISSILE MOTOR CASES ***** DELINQUENT STATUS REPORT ***** | | | | | JUN 84 |
| 03 0350 2834 | IMPROVED TRACK PIN SHOT PEENING INSPECTION THE IMPLEMENTATION PHASE HAS BEEN COMPLETED. IT CONSISTED OF INSTALLATION OF AUTOMATED X-RAY DIFFRACTION EQUIPMENT. DURING IMPLEMENTATION, IT WAS FOUND NECESSARY TO DESIGN A NEW JIG MORE SUITABLE FOR PRODUCTION ENVIRONMENT FOR HOLDING TRACK PINS. | 41.0 | | 11.0 | APR 84 | JUN 84 |

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TITLE + STATUS

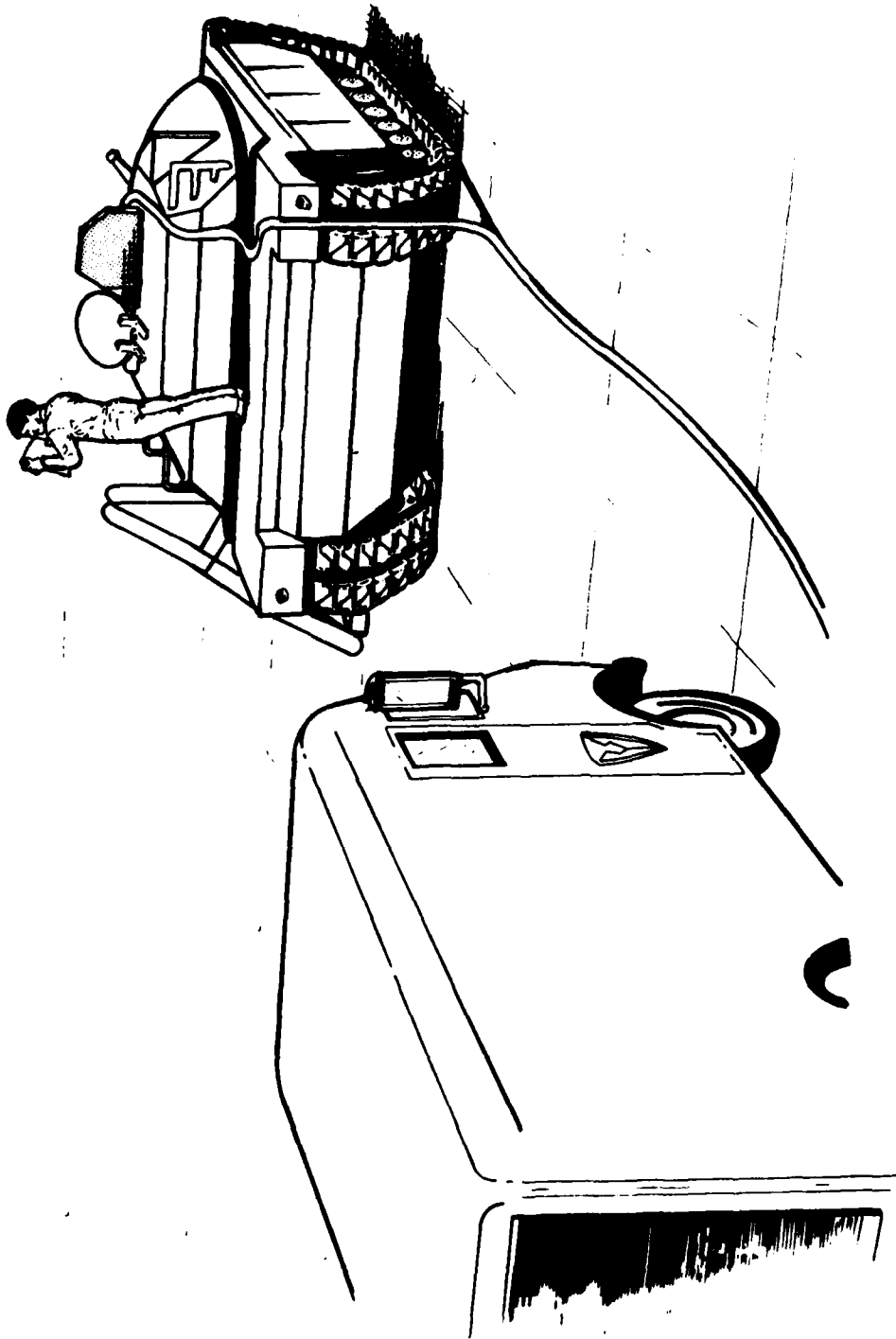
| | | AUTHORIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|--------------|--|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| 03 0350 2844 | MEASURING PROJECTILE RESISTANCE TO FREE FALL IMPACT DURING THIS REPORTING PERIOD, IT WAS DETERMINED WHETHER THE DRUP TESTER COULD BE ADAPTED FOR POSSIBLE USE BY TECUM AND THE MODIFICATIONS THAT WOULD BE REQUIRED. | 61.2 | | | | JCT 84 |
| 03 0350 2870 | PROTOTYPE INFRARED SEEKER AND AUTOPILOT TESTING SEE PROJECT NO M 82 6350-2876 FOR STATUS. | | | | | SEP 84 |
| 03 0350 2880 | IN-PROCESS DETM OF LOWERED DETECTION LIMIT OF PHOTOMETRICS THE CONTRACT FOR THIS WORK WAS AWARDED IN SEPTEMBER 1983. | 32.0 | 32.0 | | MAY 84 | MAR 84 |
| 03 0350 2889 | PROCEDURES FOR INSPECTING + MONITORING THERMOPLASTIC RESINS SEE PROJECT M 82 6350 2889 FOR STATUS. | 49.0 | | | | JUN 80 |
| 03 0350 2894 | RESIDUAL STRESS DETERMINATION BY ACOUSTIC WAVE VELOCITY EVALUATED THE ULTRASONIC INTERFEROMETER. THE INTERFEROMETER WILL BE USED FOR DETERMINING THE THIRD ORDER ELASTIC CONSTANTS UNDER APPLIED STRESS CONDITIONS WHICH ARE REQUIRED FOR RESIDUAL STRESS DETERMINATIONS. | 41.5 | | 41.5 | OCT 83 | JAN 84 |
| 03 0350 2895 | NOT OF ADVANCED COMPOSITE STRUCTURES FOR BRIDGING A LABORATORY MODEL OF A HAND SCAN ULTRASONIC C-SCAN SYSTEM OPTIMIZED FOR BRIDGING APPLICATION HAS BEEN ASSEMBLED. | 41.5 | | 41.5 | MAR 85 | MAR 84 |
| 03 0350 2896 | STANDARDIZED SOFTWARE TEST FACILITIES THE CONTRACTOR DELIVERED THE STANDARD SOFTWARE TEST FACILITY FUNCTIONAL DESCRIPTION FOR COMMENT BY THE GOVERNMENT. THE FINAL IS SCHEDULED FOR COMPLETION DEC 83. THE FUNCTIONAL SPECIFICATION WORK WAS STARTED AND IS SCHEDULED FOR COMPLETION JAN 84. | 466.0 | 220.0 | 65.5 | SEP 83 | SEP 85 |
| 03 0350 2897 | STANDARD MONITORS TO INCREASE SOFTWARE TESTABILITY THE PROJECT STATEMENT OF WORK WAS REVIEWED WITH THE CONTRACTOR. THIS RESULTED IN A SLIGHT REVISION OF THE DELIVERABLES. | 355.0 | 131.5 | 21.4 | | SEP 84 |
| 03 0350 2914 | DEV OF AN AUTO ANAL AND CONTROL SYSTEM FOR GAS LIFE TESTERS THE EQUIPMENT CONTRACT WAS AWARDED. THE EQUIPMENT HAS BEEN RECEIVED. | 11.0 | 7.8 | | MAY 84 | SEP 84 |
| 03 0350 2920 | TESTING OF M55 DETONATOR STAB SENSITIVITY AND OUTPUT AN AUTOMATED SYSTEM FOR TESTING M-55 DETONATORS STAB SENSITIVITY AND OUTPUT WAS DESIGNED. ORDERS HAVE BEEN PLACED FOR THE REQUIRED EQUIPMENT. COMPONENTS WHICH CAN NOT BE PURCHASED HAVE BEEN DESIGNED AND FAB HAS STARTED. | 60.0 | 16.0 | 44.0 | | SEP 83 |
| 03 0350 2932 | ASSESSMENT OF GLARE/SCATTER IN FIRE CONTROL OPTICAL SYSTEMS A SURVEY OF GLARE MEASUREMENT TECHNIQUES WAS UNDERTAKEN. A NUMBER OF TECHNIQUES WERE IDENTIFIED AND WILL BE CONSIDERED FOR THIS EFFORT. ALSO, A VISIT WAS MADE TO EASTMAN KODAK CORPORATION TO DISCUSS GLARE TECHNIQUES USED. | 18.0 | | 17.0 | | |

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|--------------|---|----------------------------|-------------------------------|---|---|--|
| | | | | | | |
| 03 0350 2934 | APPLIC OF X-RAY TV SYSTEM FOR DIFFRACTION PATTERNS EXPERIMENTS WERE CONDUCTED TO DETERMINE THE OPTIMUM HARDNESS THRESHOLD VALUES. STANDARD VICKERS HARDNESS MEASUREMENTS WERE MADE ON FLAT AND CURVED SPECIMENS AND THEY COMPARED FAVORABLY WITH THOSE COMPUTED FROM THE X-RAY DIFFRACTION IMAGE. | 60.0 | | 60.0 | | SEP 83 |
| 03 0350 2946 | IMPROVED PROGRAMMABLE HIGH RESPONSE FUNCTIONAL ACCEL TESTER FOUR PROPOSALS WERE EVALUATED. TWO WERE SELECTED FOR FURTHER CONSIDERATION. VISITS WERE MADE TO THE TWO CONTRACTOR PLANTS WHERE THE PROPOSALS WERE FURTHER DISCUSSED. | 58.0 | | 58.0 | | DEC 83 |
| 03 0350 2947 | MOBILITY MONITORING SYSTEM SEE PROJECT NO M 81 6350-2947 FOR STATUS. | | | | DEC 85 | JUN 85 |
| 03 0350 2962 | AUTOMATION OF 65 DEGREE-C PROPELLANT SURVEILLANCE TEST THE PROJECT FUNDS WERE USED TO PROCURE A TEXTRONIX COMPUTER WITH DISPLAY TERMINAL, MODEL NO. 4113, TOGETHER WITH ESSENTIAL PERIPHERALS SUCH AS A GRAPHICS COPIER. THE CONTRACTS FOR THIS EQUIP WERE AWARDED ON THE LAST DAY OF FY83. | 60.0 | 31.4 | 18.0 | SEP 85 | SEP 85 |
| 03 0350 2968 | INVEST OF SCAN PHOTOACOUSTIC MICROSCOPY F/CERAMICS INSPECT A STATEMENT OF WORK HAS BEEN PREPARED FOR THE DEMONSTRATION OF THE SCANNING PHOTOACOUSTIC MICROSCOPE (SPAM) FOR DETECTION OF SURFACE AND NEAR SURFACE DEFECTS IN STRUCTURAL CERAMIC MATERIAL. | 17.0 | | 17.0 | JUL 84 | DEC 84 |
| 03 0350 2972 | CAPILLARY GAS CHROMATOGRAPHIC TEST OF ARMY SOLID PROPELLANTS THE RESULTS OF THIS EFFORT HAVE DEMONSTRATED THAT THE CAPILLARY GAS CHROMATOGRAPHY IS A SIGNIFICANT IMPROVEMENT OVER PACKED COLUMN GAS CHROMATOGRAPHY. | 44.5 | 11.9 | 32.5 | SEP 83 | SEP 83 |
| 03 0350 2980 | PORTABILITY OF TEST SOFTWARE FOR VHIC CHIPS THE CONTRACT WAS AWARDED SEP 20 1983. WORK HAS STARTED ON REVIEWING THE VHIC CHIP AND TEST SOFTWARE SPEC TO DETERMINE COMMONALITIES. ATLAS, PASCAL AND ADA LANGUAGES WERE REVIEWED FOR SUITABILITY AS COMMON INTERMEDIATE TEST DESCRIPTION LANGUAGE. | 100.0 | 40.0 | | DEC 83 | APR 84 |
| 03 0350 2981 | FLUIDIC POWER SUPPLY ACCEPTANCE TESTER THE HIGH PRESSURE ACCEPTANCE TESTER BREADBOARD WORK HAS BEEN COMPLETED. ALL OF THE PURCHASED COMPONENTS HAVE BEEN RECEIVED. THE COMPUTER HAS BEEN INTEGRATED WITH THE PROTOTYPE PNEUMATIC SYSTEM. THE TRAJECTORY DATA SOFTWARE IS 90 PCT COMPLETE. | 150.0 | 47.2 | 95.3 | JUL 85 | JUN 85 |
| 03 0350 3001 | NEW ACCEPTANCE TESTS F/CHEM AGENT RESIST OF URETHANE PAINTS A CONTRACT FOR THE CONDUCT OF THIS EFFORT WAS AWARDED. A LITERATURE SEARCH IS UNDERWAY BY THE CONTRACTOR AND TECHNIQUES TO PREPARE THIN FILMS EVALUATED. | 71.0 | 66.0 | | APR 84 | APR 84 |

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|----------------|--|----------------------------|-------------------------------|---|---|--|
| | | | | | | |
| 2 83 0350 3006 | ACOUSTIC EMISSION MONITOR/CONTR. OF GUN TUBE STRAIGHTENING THE GUN TUBE BEND TESTS WERE COMPLETED. INVESTIGATED THE BENEFITS OF USING NOISE ANALYSIS EQUIPMENT. PERFORMED JN LINE, FULL SCALE TESTING. ESTABLISHED AE PARAMETERS TO BE APPLIED TO PRODUCTION CANNON TUBES. COMPLETED THE FULL SCALE TESTING. | 50.0 | 50.0 | | SEP 83 | JAN 84 |
| 4 83 0350 3010 | DIGITAL IMAGE AMPLIFICATION X-RAY SYSTEM DURING THIS REPORTING PERIOD TWO INERT STD WERE DESIGNED AND FABRICATED. MULTIPLE X-RAYS WERE TAKEN AND ANALYZED TO DETERMINE THE DEFECTS WITHIN THE INERT FILLERS. | 40.0 | | 40.0 | | SEP 83 |
| 1 83 0350 3011 | PASSIVE/ACTIVE ROD TESTING THE ESSENTIAL COMPONENTS OF THE PARTS SYSTEM HAVE BEEN ASSEMBLED AND A NUMBER OF RODS TESTED. DELIVERY OF THE PDP-11 COMPUTER HAS BEEN DELAYED UNTIL DEC 83. THE REMAINING FY84 EFFORT TO COMPLETE PROGRAM WILL BE SUPPORTED BY IN-HOUSE NYEUL FUNDING. | 520.0 | 268.0 | 252.0 | SEP 85 | MAR 84 |



TEST AND EVALUATION COMMAND (TECOM)

TEST AND EVALUATION COMMAND

CURRENT FUNDING STATUS, 2ND CY83

| FISCAL YEAR | NO. OF PROJECTS | AUTHORIZED FUNDS (\$) | CONTRACT FUNDS ALLOCATED (\$) | CONTRACT FUNDS EXPENDED (\$) | INHOUSE FUNDS REMAINING (\$) | INHOUSE FUNDS EXPENDED (\$) |
|-------------|-----------------|-----------------------|-------------------------------|------------------------------|------------------------------|-----------------------------|
| 81 | 1 | 770,000 | 0 | 0 (0%) | 770,000 | 759,000 (99%) |
| 82 | 1 | 726,000 | 0 | 0 (0%) | 726,000 | 717,400 (98%) |
| 83 | 1 | 438,000 | 0 | 0 (0%) | 438,000 | 360,000 (82%) |
| TOTAL | 3 | 1,934,000 | 0 | 0 (0%) | 1,934,000 | 1,840,400 (95%) |

AUTHORIZED FUNDING CONTRACT ALLOCATED 0% INHOUSE REMAINING 100%

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|-------------|---|-----------------------------|-------------------------------|-------------------------------------|--|---|--|
| | | | | LABOR AND MATERIAL (\$000) | | | |
| 01 5071 01 | TECH PRODUCTION TEST METHODOLOGY ENGINEERING MEASURES SEE INDIVIDUAL SUBTASKS FOR INFORMATION. | 770.0 | | 769.0 | | DEC 83 | DEC 83 |
| 01 5071 01 | ACCEPTANCE TEST PROCEDURES SEE SUBTASK 01 FY83 FOR DATA. | | | | | DEC 83 | JUN 84 |
| 01 5071 10 | TEST OPERATION PROCEDURES ***** DELINQUENT STATUS REPORT ***** | | | | | DEC 83 | DEC 83 |
| 01 5071 37 | MULLIVER TEST OF MILITARY VEHICLES SEE SUBTASK 37 FY82 FOR DATA. | | | | | DEC 83 | JUN 84 |
| 01 5071 43 | TEST AUTOMATION DEVELOPMENT SEE SUBTASK 43 FY83 FOR DATA. | | | | | DEC 83 | DEC 84 |
| 01 5071 57 | GENERAL PURPOSE BIT SLICE MICRO-COMPUTER SEE SUBTASK 57 FY83 FOR DATA. | | | | | DEC 83 | DEC 84 |
| 01 5071 59 | SOLAR PUMPED INSTRUMENTATION VAN SEE SUBTASK 59 FY82 FOR DATA. | | | | | DEC 83 | DEC 84 |
| 01 5071 60 | RECEIVER OPERATING CHARACTERISTICS MEASUREMENTS NO NEW WORK INDICATED FOR THIS REPORTING PERIOD. WORK STATUS IDENTICAL TO WORK STATUS SUBMITTED DURING PREVIOUS REPORTING PERIOD. | | | | | DEC 83 | DEC 84 |
| 01 5071 71 | COPPER CRUSHER PRESSURE GAGES SEE SUBTASK 71 FY83 FOR DATA. | | | | | DEC 83 | DEC 84 |
| 01 5071 73 | INTEGRATED TEST DATA ACQUISITION NO WORK INDICATED IN STATUS REPORT. LACK OF FUNDING IN FY82 + FY83 RESULTED IN THE RESTRUCTURING TO SUPPORT ROT+E FUNDING. THIS TASK HAS BEEN TRANSFERRED TO THE ROT+E PROGRAM AND SHOULD BE DELETED FROM THE MMT PROGRAM. | | | | | DEC 83 | DEC 83 |
| 01 5071 74 | SMOKE SAMPLING/CHARACTERIZATION NO WORK INDICATED THIS REPORTING PERIOD. WORK STATUS IDENTICAL TO THAT REPORTED ON PREVIOUS STATUS REPORT. | | | | | DEC 83 | DEC 83 |
| 01 5071 76 | GAMMA DOSIMETRY IMPROVEMENT + MODERNIZATION PROGRAM SEE 0 83 5071-76 FOR WORK STATUS. | | | | | DEC 83 | JUN 84 |
| 01 5071 77 | ELECTROMAGNETIC RADIATION EFFECTS/SUSCEPTIBILITY OF ARMY MAT SEE SUBTASK 77 FY82 FOR DATA. | | | | | DEC 83 | JUN 84 |

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|-------------|--|--------------------|-------------------------|-------------------------------------|--------------------------------|------------------------------|
| 01 5071 79 | ENVIRONMENTAL ISSUES GUIDE FOR HUMID TROPIC TESTING THE BASIC MATRIX HAS BEEN DEVELOPED AND HAS BEEN COORDINATED WITH THE US ARMY ENGINEERS TOPOGRAPHIC LABORATORY. THE FINAL REPORT HAS BEEN APPROVED AND PUBLISHED. | | | | DEC 83 | DEC 84 |
| 01 5071 80 | COMPUTER AIDED TEST PLANNING THE FINAL REPORT HAS BEEN APPROVED AND PUBLISHED. THE REPORT CONTAINS BACKGROUND, MATERIAL DESCRIPTION, TEST OBJECTIVES, AND SCOPE, AND INDIVIDUAL SUBTESTS FOR RECEIPT INSPECTION, TROPIC STORAGE AND PERFORMANCE, RELIABILITY AND LOGISTICS SUPPORT. | | | | DEC 83 | DEC 84 |
| 01 5071 96 | CALIBRATION PROCEDURES FOR TV TRACKING SYSTEM * SEE SUBTASK 96 FY82 FOR DATA. | | | | | DEC 84 |
| 02 5071 | TECOM PRODUCTION TEST METHODOLOGY ENGINEERING MEASURES SEE INDIVIDUAL SUBTASKS FOR INFORMATION. | 725.0 | | 717.4 | DEC 84 | DEC 84 |
| 02 5071 01 | ACCEPTANCE TEST PROCEDURES SEE SUBTASK 01 FY83 FOR DATA. | | | | DEC 84 | DEC 84 |
| 02 5071 10 | TEST OPERATIONS PROCEDURES ***** DELINQUENT STATUS REPORT ***** | | | | DEC 84 | DEC 84 |
| 02 5071 100 | AUTO PARTICLE COUNTERMEASUREMENT MEAS IN HYDRAULIC OIL WORK ON THIS SUBTASK HAS BEEN DELAYED DUE TO REPEATED BREAKDOWN OF THE AUTOMATIC PARTICLE COUNTER. A NEW LABORATORY MODEL COUNTER HAS BEEN ORDERED (NOT FUNDED BY MMT) AND SHOULD BE AVAILABLE SOON FOR USE ON THIS SUBTASK. | | | | DEC 84 | DEC 84 |
| 02 5071 101 | GENERAL PURPOSE TRANSPORTABILITY TEST AREA THE FINAL REPORT HAS BEEN REVIEWED AND APPROVED FOR PUBLICATION. | | | | DEC 84 | DEC 84 |
| 02 5071 37 | ROLLOVER TEST OF MILITARY VEHICLES NO WORK ACCOMPLISHED THIS PERIOD. STATUS REPORT IDENTICAL TO ONE SUBMITTED PREVIOUSLY. | | | | DEC 84 | DEC 84 |
| 02 5071 43 | TEST AUTOMATION SEE SUBTASK 43 FY83 FOR DATA. | | | | DEC 84 | DEC 84 |
| 02 5071 57 | GENERAL PURPOSE BIT SLICE MICROCOMPUTER * SEE SUBTASK 57 FY83 FOR DATA. | | | | DEC 84 | DEC 84 |
| 02 5071 59 | SOLAR POWERED INSTRUMENTATION VAN THE THERMO-ELECTRIC DEVICE (TED) HEATER/COOLER SYS DID NOT OPERATE PROPERLY DURING TESTS. THE SYS WAS USED TO SUPPORT THE PATRIOT HEMTT OUTRIGGER TEST AT LC-38 IN DECEMBER 1983 WITHOUT ANY PROBLEMS. | | | | DEC 84 | DEC 84 |

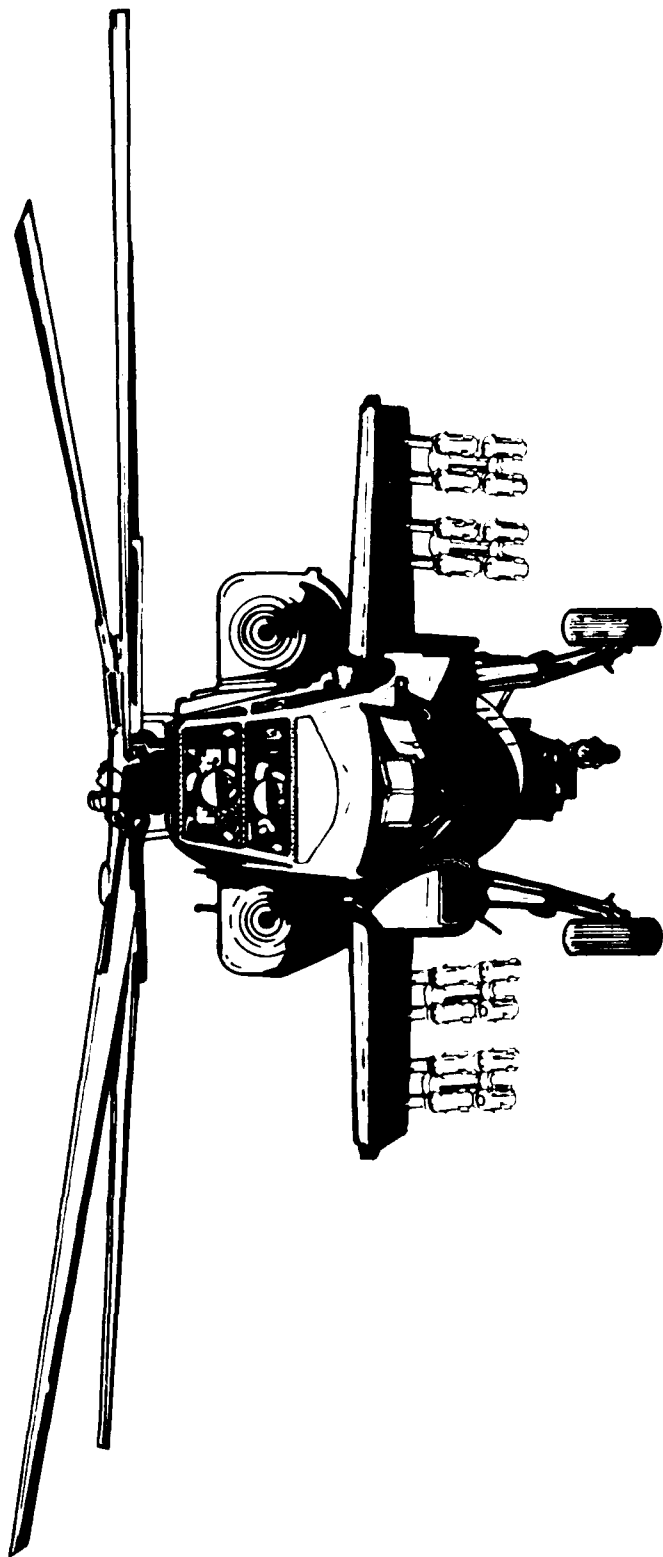
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| | | | | | | |
| 02 5071 71 | CUPREN CRUSHER PRESSURE GAGES SEE SUBTASK 71 FY83 FOR DATA. | | | | | DEC 84 |
| 02 5071 76 | GAMMA DESIMETRY IMPROVEMENT + MODERNIZATION PROGRAM * SEE SUBTASK 76 FY83 FOR DATA. | | | | | DEC 84 |
| 02 5071 77 | ELECTROMAGNETIC RADIATION EFFECTS + SUSCEPTIBILITY OF ARMY M NO NEW WORK INDICATED FOR THIS REPORTING PERIOD. WORK STATUS IDENTICAL TO WORK STATUS SUBMITTED DURING PREVIOUS REPORTING PERIOD. | | | | | DEC 84 |
| 02 5071 81 | BINARY MUNITIONS PRODUCTION TEST METHODOLOGY NO WORK ACCOMPLISHED THIS REPORTING PERIOD. SUBTASK DELAYED DUE TO LACK OF FY83 FUNDS. STATUS IS THE SAME AS STATUS PREVIOUSLY REPORTED. | | | | | DEC 85 |
| 02 5071 90 | TOXIC GAS ANAL BY GAS CHROMATOGRAPHY PROBLEMS HAVE BEEN ENCOUNTERED WITH THE GAS CHROMATOGRAPHIC ANALYZER. A NEW INSTRUMENT HAS BEEN PURCHASED (NOT FUNDED WITH MAT) AND WILL SOON BE AVAILABLE FOR USE ON THIS SUBTASK. | | | | DEC 84 | DEC 84 |
| 02 5071 92 | EFFECTS OF RAIN + VEGETATION ON FUSES + TRACT SWITCHES PHASE II OF THIS TASK HAS BEEN CANCELLED DUE TO LACK OF FY83 AND FY84 FUNDING AND REVIEW OF FUTURE PRIORITIES. | | | | | DEC 83 |
| 02 5071 95 | RAPID EVALUATION OF ENVIRONMENTAL HAZARDS IT WAS DETERMINED THAT THE PRIMARY HAZARDS OF EXPOSURE ASSOCIATED WITH LEAVES CONTAMINATED WITH QL ARE VIA INGESTION OR DERMAL CONTACT. | | | | | DEC 85 |
| 02 5071 96 | CALIBRATION PROCEDURES FOR TV TRACKING SYSTEM NO WORK ACCOMPLISHED ON THIS SUBTASK DURING REPORTING PERIOD. THE FINAL REPORT WILL BE COMPLETED IN FY84. | | | | | DEC 84 |
| 02 5071 97 | IMP METH FOR PERFORMANCE TESTING MORTARS AT EXTREME TEMP NO CHANGE INDICATED IN STATUS REPORT. REPORT STATES SUBTASK WAS PARTIALLY FUNDED IN FY82, ADDITIONAL FUNDING HAS BEEN PROVIDED IN FY84. | | | | DEC 84 | DEC 84 |
| 03 5071 | TECUM PRODUCTION TEST METHODOLOGY ENGINEERING MEASURES SEE INDIVIDUAL SUBTASKS FOR INFORMATION. | 438.0 | | 34.00 | DEC 84 | DEC 84 |
| 03 5071 01 | ACCEPTANCE TEST PROCEDURES THE CENTRAL LIBRARY FOR THE TOTAL ATP PROGRAM (AMMUNITION, ARMOR PLATE AND WEAPONS) WAS MAINTAINED. | | | | DEC 84 | DEC 84 |

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NO. TITLE + STATUS

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|------------|---|----------------|--------------------|---|---|--|
| | | | | | | |
| 03 0071 10 | TEST OPERATIONS PROCEDURES DEVELOPMENT STATUS REPORT 0000 | | | | DEC 85 | DEC 85 |
| 03 0071 43 | TEST AUTOMATION THIS SUBTASK IDENTIFIED PROCEDURES/EQUIPMENTS NEEDED TO AUTOMATE EXISTING RF SIMULATORS + RF MONITORS. RESULTS ARE REPORTED IN JPL REPORT (JPL 01052), OCT 83, SUBJ. UVAL/GPRS AUTOMATION AND INTEGRATION. | | | | | DEC 85 |
| 03 0071 57 | GENERAL PURPOSE BIT SLICE MICROCOMPUTER THE FINAL REPORT IS BEING WRITTEN. THIS PROJECT HAS PROVIDED KNOWLEDGE IN BIT-SLICE HARDWARE TECHNOLOGY, MICROPROGRAMMING, AND MINICOMPUTER INTERFACE APPLICATIONS. | | | | | DEC 84 |
| 03 0071 71 | IMPROVED COPPER CRUSHER PRESSURE GAGES THE INTERNAL BALLISTICS DIVISION COMPLETED ITS ANALYSIS OF THE GAGE PARAMETERS USING FINITE ELEMENTS AND PREPARED A GAGE DESIGN. THE DESIGN WAS MODIFIED BY MTU TO FULLY SATISFY KNOWN REQUIREMENTS. | | | | | DEC 85 |
| 03 0071 74 | IMPROVE JF SMOKE MONITOR/GENERATOR PRODUCTION TEST PROCEDURES NO WORK INDICATED THIS REPORTING PERIOD. WORK STATUS IDENTICAL TO THAT REPORTED IN PREVIOUS STATUS REPORT. | | | | | JAN 84 |
| 03 0071 76 | GAMMA DOSIMETRY IMPROVEMENT + MODERNIZATION PROGRAM THE BASIC PRODUCTION GAMMA DOSIMETER WAS CHANGED TO A CALCIUM FLUORIDE CHIP FROM LITHIUM FLUORIDE PUMPER. AN AUTOMATED GAMMA DOSIMETRY DATA BASE PROGRAM FOR DATA STORAGE AND RETRIEVAL, AND REPORT PREPARATION HAS BEEN COMPLETED. | | | | | DEC 84 |



AVIATION SYSTEMS COMMAND (AVSCOM)

A V I A T I C A S Y S T E M S C O M M A N D
CURRENT FUNDING STATUS, 2ND CYC

| FISCAL YEAR | NO. OF PROJECTS | AUTHORIZED FUNDS (\$) | CONTRACT ALLOCATED (\$) | CONTRACT FUNDING EXPENDED (\$) | IN HOUSE REMAINING (\$) | IN HOUSE EXPENDED (\$) |
|----------------|--------------------|-------------------------------|------------------------------|--|---------------------------------|--------------------------------|
| 81 | 8 | 1,642,200 | 1,155,300 | 971,400 (84%) | 486,900 | 477,900 (97%) |
| 82 | 14 | 19,259,500 | 16,578,000 | 11,449,800 (70%) | 2,881,300 | 1,222,200 (45%) |
| 83 | 6 | 4,137,400 | 3,199,100 | 135,300 (4%) | 938,300 | 503,200 (55%) |
| TOTAL | 33 | 25,038,900 | 20,730,400 | 12,600,500 (60%) | 4,306,500 | 2,303,300 (53%) |

AUTHORIZED FUNDING CONTRACT ALLOCATED 83% INHOUSE REMAINING 17%

SUMMARY PROJECT STATUS REPORT
MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
2ND SEMIANNUAL SUBMISSION CY 83 RCS DRMT-301

PROJECT NO. TITLE + STATUS

| PROJECT NO. | TITLE + STATUS | AUTHORIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|-------------|--|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| 01 7036 | ISOTHERMAL ROLL-FORGING OF COMPRESSOR BLADES IT WAS DETERMINED THAT HOT FURNING OF AM350 ALLOY MUST BE USED TO IMPART THE AIRFOIL TWIST. | 190.2 | 24.4 | 65.0 | NOV 82 | AUG 84 |
| 02 7119 | NON-DESTRUCTIVE EVALUATION TECH FOR COMPOSITE STRUCTURES STATE-OF-THE-ART REVIEWS ON RADIOGRAPHY AND THERMOGRAPHY TECHNIQUES WERE COMPLETED. WORK ON ULTRASONIC AND LIQUID CRYSTALLOGRAPHIC TECHNIQUES IS IN PROCESS. A GA ANALYSIS OF THE AM-1 COMPOSITE BLADE MANUFACTURE WAS COMPLETED. | 450.0 | 127.0 | 312.6 | NOV 83 | JULY 84 |
| 01 7143 | CERAMIC GAS PATH SEAL-HIGH PRESSURE TURBINE PHASE IV DEVELOPING THE MANUFACTURING PROCESS, WAS COMPLETED. THE VACUUM PLASMA DEPOSITION PROCESS WAS SELECTED. THERMAL SHOCK TESTS WERE SUCCESSFULLY COMPLETED. PHASE IV APPLICATION OF THE MFC PROCESS TO FULL SCALE HARDWARE WAS INITIATED. | 430.0 | 396.8 | 33.2 | FEB 83 | JUN 84 |
| 02 7143 | CERAMIC HIGH-PRESSURE GAS PATH SEAL WORK WILL BE INITIATED UPON COMPLETION OF PROJECT 1 81 7143. | 405.0 | 357.2 | 45.0 | FEB 83 | DEC 83 |
| 02 7197 | FABRICATION OF INTEGRAL RUTURS BY JOINING ALL WORK COMPLETE WAITING ON FINAL PREPARATION OF TECHNICAL REPORT. | 314.0 | 290.5 | 23.0 | SEP 82 | APR 84 |
| 01 7204 | APPLICATION OF THERMOPLASTICS TO HELICOPTER SECONDARY STRUCTURE ALL TECHNICAL WORK HAS BEEN COMPLETED. THE FINAL REPORT IS BEING PRINTED. | 185.0 | 177.6 | 57.4 | JULY 81 | JUN 84 |
| 02 7241 | MET ISOSTATIC PRESSED TITANIUM CASTINGS TASK I IS COMPLETE AND SUPPLIER SELECTION FOR TASK II IS COMPLETE. TASK III HEAT TREAT MICROSTRUCTURE INDICATES ACCEPTABLE FATIGUE AND TENSILE STRENGTHS ALSO INDICATIONS THAT BETA SOLUTION TREATMENT W/UL QUENCH IS REPEATABLE AND ACCEPTABLE. | 500.0 | 304.0 | 67.0 | JAN 83 | JULY 84 |
| 01 7285 | CASE TITANIUM COMPRESSOR IMPELLERS CONTRACTOR PROGRESS HAS BEEN DELAYED DUE TO OVERALL PROGRAM SLIPPAGE DUE TO MELTING STOCK AVAILABILITY. | 174.0 | 170.0 | 54.0 | JULY 81 | JUN 84 |
| 02 7285 | CASE TITANIUM COMPRESSOR IMPELLERS CONTRACTOR PROGRESS HAS BEEN DELAYED DUE TO OVERALL PROGRAM SLIPPAGE DUE TO MELTING STOCK AVAILABILITY. | 350.0 | 312.0 | 34.0 | MAR 84 | JUN 84 |
| 02 7286 | HIGH QUALITY SUPERALLOY POWDER PROD F/TURBINE COMPONENTS EFFORT INITIATED WITH IN-GOT PROCESSING BY ELECTRON BEAM REMELT, NOW COMPLETE. DELAY DUE TO POWDER VENDOR NOT HAVING COMPLETED MODIFICATIONS TO IMPROVE POWDER QUALITY CONTROL. | 360.0 | 300.0 | 49.0 | APR 85 | JAN 85 |

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
SUMMARY PROJECT STATUS REPORT
2ND SEMIANNUAL SUBMISSION CY 83 RCS DRGNT-301

| TASK NO. | TITLE + STATUS | AUTHOR- RIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|-----------|---|-----------------------------|-------------------------------|---|---|--|
| | | | | | | |
| 1 01 1200 | MMT DETERMINATION OF OPTIMAL CURING CONDITIONS ALL TENSILE, FLEXURE, AND SHORT-TERM SHEAR TESTS HAVE BEEN COMPLETED ON E- AND S-2 GLASS/EPOXY LAMINATES. SOME IR (THERMOGRAPHY RUNS HAVE BEEN CONDUCTED ON THICK LAMINATES (OVER 100 PLYS). | 158.0 | | 158.0 | AUG 82 | SEP 84 |
| 1 01 1291 | TITANIUM POWDER METAL COMPRESSOR IMPELLER NEW TOOLING FOR SHAPE TRIALS IS COMPLETE AND CONTRACTOR IS ASSEMBLING FLUID DIES FOR CONSOLIDATION IN JANUARY 1984. | 240.0 | 200.0 | 29.0 | JAN 83 | JAN 85 |
| 1 02 1294 | TITANIUM POWDER METAL COMPRESSOR IMPELLER NEW EFFORT TO INCORPORATE LOW-COST DIE APPROACHES AND TOOLING/FIXTURE IMPROVEMENTS. THIS EFFORT WAS ADDED IN OCT 83. | 275.0 | 209.0 | 27.0 | MAR 84 | JAN 85 |
| 1 02 1296 | HIGH TEMPERATURE VACUUM CARBURIZING MODIFICATION TO THE AISI 5210 STEEL VACUUM CARBURIZING HAS BEEN COMPLETED. COMPONENTS HAVE BEEN REMANUFACTURED, HEAT TREATED AND SHIPPED TO RUSSIA FOR EVALUATION. METALLURGICAL EVALUATION OF ALL THE SPECIMENS IS STILL ON-GOING. | 240.0 | 180.5 | 47.7 | APR 83 | JAN 84 |
| 1 03 1295 | HIGH TEMPERATURE VACUUM CARBURIZING PHASE II CONTRACTUAL WORK HAS NOT BEGUN DUE TO DELAYS IN THE COMPLETION OF PHASE I. WORK IS EXPECTED TO BEGIN IN JANUARY 1984. | 375.5 | 340.0 | 35.5 | SEP 84 | SEP 84 |
| 1 04 1300 | IMPROVED LOW CYCLE FATIGUE CAST RUTERS MATERIAL SCREENING TESTS COMPLETE AND FINAL PROCESS SELECTED. PILOT PRODUCTION INITIATED IN DECEMBER 1983. | 480.0 | 425.0 | 46.0 | JUN 85 | APR 84 |
| 1 04 1347 | PROD METH F/DIGITAL ADDRESSABLE MULTI-LEGEND DISPLAY SWITCH AVRADA PERFORMED ALL WORK IN-HOUSE. TEN SWITCH/DISPLAY MANUFACTURERS INCLUDING MICROSWITCH AND PENNSYLVANIA WERE SURVEYED + VISITED. PHASE I IS COMPLETED. TECH REPORT WILL BE SUBMITTED BEFORE 31 DEC 1984. PHASE II WILL NOT BE FUNDED. | 50.0 | | 50.0 | OCT 83 | OCT 84 |
| 1 02 1324 | LOW-COST TRANSPIRATION-COOLED COMBUSTOR LINER WORK CONTINUES ON IMPROVING THE BOND QUALITY AND REDUCING FABRICATION TIME. THIS IS DONE BY PLACING THE SHEETS INSIDE A METAL BAG PRIOR TO PLACING IN THE FURNACE. | 530.0 | 460.0 | 51.3 | MAR 85 | MAY 84 |
| 1 02 1342 | PULTRUSION OF HONEYCOMB SANDWICH STRUCTURES A CRAFT FINAL REPORT HAS BEEN RECEIVED FROM THE CONTRACTOR. THE REPORT WILL BE COMPLETED BEFORE JUN 84. | 93.0 | | 93.0 | APR 84 | JUN 84 |
| 1 02 1351 | COMPOSITE SHAFTING FOR TURBINE ENGINES FABRICATION OF THE FULL SCALE DIAMETER AND HALF SIZE LENGTH SHAFT IS CONTINUING. | 3.5.0 | | 3.5.0 | SEP 84 | SEP 84 |

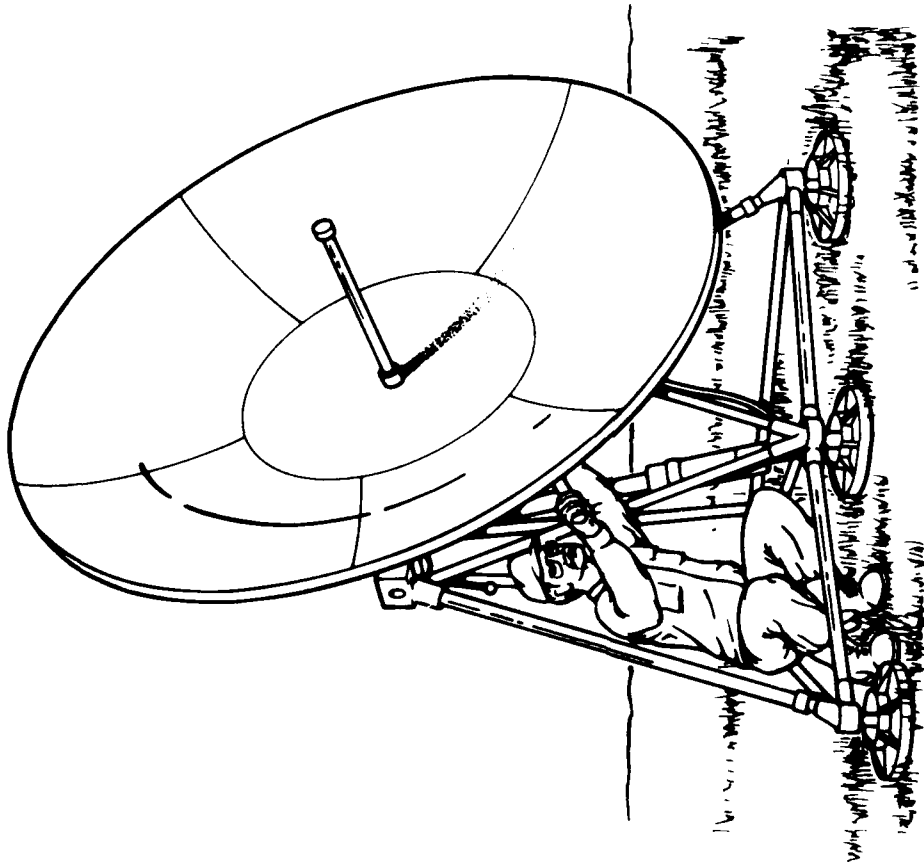
S U B J E C T P R O J E C T S T A T U S R E P O R T
MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
2ND SEMIANNUAL SUBMISSION CY 83 RCS DRCMT-301

| PROJECT NO. | TITLE + STATUS | AUTHOR- RIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|-------------|---|-----------------------------|-------------------------------|---|---|--|
| | | | | | | |
| 1 02 1371 | INTEGRATED BLADE INSPECTION SYSTEM (IBIS) COMPLETED THE WORK ON THE IRIM PLAN AND AIRFIELD SECTION INCLUDING THE PERFORMANCE AND VALIDATION TEST PLANS. IRIM HARDWARE INCLUDING HIGH SPEED IMAGE ACQUISITION AND MANIPULATOR EQUIPMENT IS BEING ACQUIRED AND FABRICATED. | 500.0 | 475.0 | 12.0 | SEP 84 | DEC 84 |
| 1 02 1376 | AUTO INSPECT AND PRECISION GRINDING OF SB GEARS CONTRACT AWARD FOR PURCHASE OF INSPECTION EQUIPMENT. | 210.0 | 184.5 | 30.5 | DEC 84 | MAY 85 |
| 1 02 1378 | AUTO INSPECT AND PRECISION GRINDING OF SB GEARS THIS PROJECT HAS BEEN DELAYED BY MECH OF PROTOTYPE INSPECTION MACH AND SPIRAL BEVEL GRINDER. BOTH UNDERESTIMATED NEEDS OF THE PROGRAM. GEAR GRINDER NOW REQUIRED ON PRIORITY BASIS. DETAILED PLAN TO RESTORE SCHEDULE HAS BEEN REQUESTED. | 1,012.0 | 939.5 | 70.6 | JUN 85 | JUN 86 |
| 1 02 1384 | LOW-COST COMPOSITE MAIN ROTOR BLADE FOR THE UH-60A A NEW, IMPROVED, SINGLE PIECE MANUEL WAS EVALUATED AND FOUND TO REDUCE MANPOWER TIME. FABRICATION OF FULL SIZED BLADES, PHASE 2, WAS INITIATED. THE PHASE 1 INTERIM REPORT WAS WRITTEN, AND A PHASE 1 BRIEFING IS BEING PLANNED. | 2,895.3 | 2,775.3 | 120.0 | JUN 83 | JAN 84 |
| 1 03 1384 | LOW-COST COMPOSITE MAIN ROTOR BLADE FOR THE UH-60A CONTRACTUAL FUNDS WERE NOT DELICATED. WORK WAS CONDUCTED IN-HOUSE, AND CONSISTED OF FATIGUE TESTS ON A BALLISTICALLY DAMAGED BLADE SECTION, AND EXTENSIVE NEGOTIATIONS WITH THE CONTRACTOR. | 440.0 | | 296.0 | SEP 84 | JUN 84 |
| 1 03 1387 | PRODUCTION OF ALUMINUM AIRFRAME COMP (SUPERPLASTIC FORMING) DETAIL DESIGN REFINEMENT AND TOOL DESIGN IS COMPLETED. TOOLS ARE FABRICATED AND PROVEN. DRAWINGS ARE RELEASED. PROJECT ON SCHEDULE AND WITHIN BUDGET. | 125.0 | 100.0 | 25.0 | MAR 85 | JUL 85 |
| 1 02 1414 | INFRARED DETECTOR FOR LASER WARNING RECEIVER PERKIN-ELMER CORP MADE 86 INDIUM ARSENIDE IR DETECTORS. PROCESSES INCLUDE DIFFUSION OF ZINC-DIARSENIDE, LAPPING + PLATING WAFER BACKSIDE, CHROME-GOLD PLATING OF FRONTSIDE, MASKING, ETCHING AN INTERDIGITATED PATTERN, + MOUNTING + WIRING TO HEADER. | 250.0 | 21.0 | 1.0 | JUN 82 | JUN 84 |
| 1 02 1419 | MNT T700 BLISK REPAIR TWO WELDING OPERATIONS HAVE BEEN DEFINED FOR THIS REPAIR PROGRAM, PLASMA AND TIG. COUPONS FOR HIGH CYCLE FATIGUE AND CORROSION TESTS HAVE BEEN FABRICATED. | 800.0 | 607.0 | 193.0 | MAR 85 | JUN 85 |
| 1 02 1426 | MNT-IPI PROGRAM-MARTIN MARITTA TAUS/PNVS MILCOM AND AVSCOM ARE STILL NEGOTIATING A BUSINESS ARRANGEMENT WITH MARTIN MARITTA. HQ-DA AND DARCOM WANT THE AGREEMENT TO BE SIGNED BEFORE THEY PROCEED WITH PHASE I WORK. MARTIN WILL STUDY WHAT MNT AND BUSINESS SYSTEMS ARE NEEDED FOR MOB REGMT. | 110.0 | | | | |

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
SUMMARY PROJECT STATUS REPORT
2ND SEMIANNUAL SUBMISSION CY 83 RCS DRCMT-301

TITLE + STATUS

| PROJECT NO. | TITLE + STATUS | AUTHORIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABELS AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|-------------|---|--------------------|-------------------------|--------------------------------------|----------------------------------|---------------------------------|
| 1 33 1421 | ATTACK HELICOPTER PRODUCTIVITY IMPROVEMENT (API) PROGRAM CONTRACT WAS SIGNED SEP 83, AND BUZZ ALLEN AND HAMILTON HIRED BY ROUCHES AS A CONSULTANT. A TOP-DOWN ANALYSIS IS IN PROCESS. EXISTING COST, SCHEDULE AND QUALITY DRIVERS ANALYSIS WAS COMPLETED. AN ASSESSMENT AND IDENTIFICATION STUDIES ARE IN PROCESS. | 1,585.0 | 1,245.0 | 70.0 | MAR 84 | MAR 84 |
| 1 33 1430 | MMT - IPI PGM - BELL HELICOPTER, INC. - AHIP PHASE I WORK IS 75 PCT COMPLETE. TEN MAJOR THREAT AREAS WERE IDENTIFIED. THE AS-IS WHITEUPS HAVE BEEN COMPLETED AND THE TO-BE ITEMS ARE BEING REVIEWED BY THE BELL UPPER MANAGEMENT. SIX INITIAL PROJECTS ARE BEING CONDUCTED ON THE EA MODEL. | 1,034.2 | 1,024.1 | 10.1 | MAY 84 | MAY 84 |
| 1 33 1460 | ADVANCED COMPOSITE SENSOR SUPPORT STRUCTURE (ACS-3) CONTRACT WAS AWARDED TO MCDONNELL DOUGLAS AERONAUTICS COMPANY. A CRITICAL DESIGN REVIEW TO BE HELD 4 JAN WILL RELEASE WORK ON TOOLING FABRICATION. | 571.7 | 450.0 | 64.6 | APR 84 | APR 84 |
| 1 82 1192 | TURBINE ENGINE PRODUCTIVITY IMPROVEMENT DETAILED FACTORY FLOOR DESIGN IS PROGRESSING WITH ANTICIPATED SLIPPAGE OF 60 DAYS. | 9,370.0 | 8,300.0 | | MAR 84 | MAY 84 |



COMMUNICATIONS AND ELECTRONICS COMMAND (CECOM)

C O M M U N I C A T I O N S + E L E C T R O N I C S C O M M A N D
CURRENT FUNDING STATUS, 2ND CYCLE

| FISCAL YEAR | NO. OF PROJECTS | AUTHORIZED FUNDS (\$) | C O N T R A C T F U N D I N G | | # | I N H O U S E F U N D I N G | | |
|-------------|-----------------|-----------------------|-------------------------------|---------------|--------|-----------------------------|---------------|---------|
| | | | ALLOCATED (\$) | EXPENDED (\$) | | REMAINING (\$) | EXPENDED (\$) | |
| 78 | 1 | 214,500 | 292,500 | 153,200 | (54%) | 22,000 | 2,000 | (10%) |
| 79 | 1 | 550,000 | 497,000 | 480,000 | (95%) | 53,000 | 52,000 | (10%) |
| 80 | 1 | 780,100 | 706,100 | 604,000 | (85%) | 74,000 | 73,500 | (9%) |
| 81 | 4 | 4,209,200 | 3,970,700 | 2,591,200 | (65%) | 290,500 | 290,700 | (100%) |
| 82 | 2 | 2,040,000 | 1,645,000 | 531,400 | (32%) | 344,400 | 121,700 | (32%) |
| 83 | 2 | 1,209,000 | 1,253,700 | 167,000 | (13%) | 15,500 | 1,000 | (6%) |
| TOTAL | 11 | 9,228,800 | 8,305,600 | 4,934,900 | (54%) | 557,200 | 548,900 | (94%) |

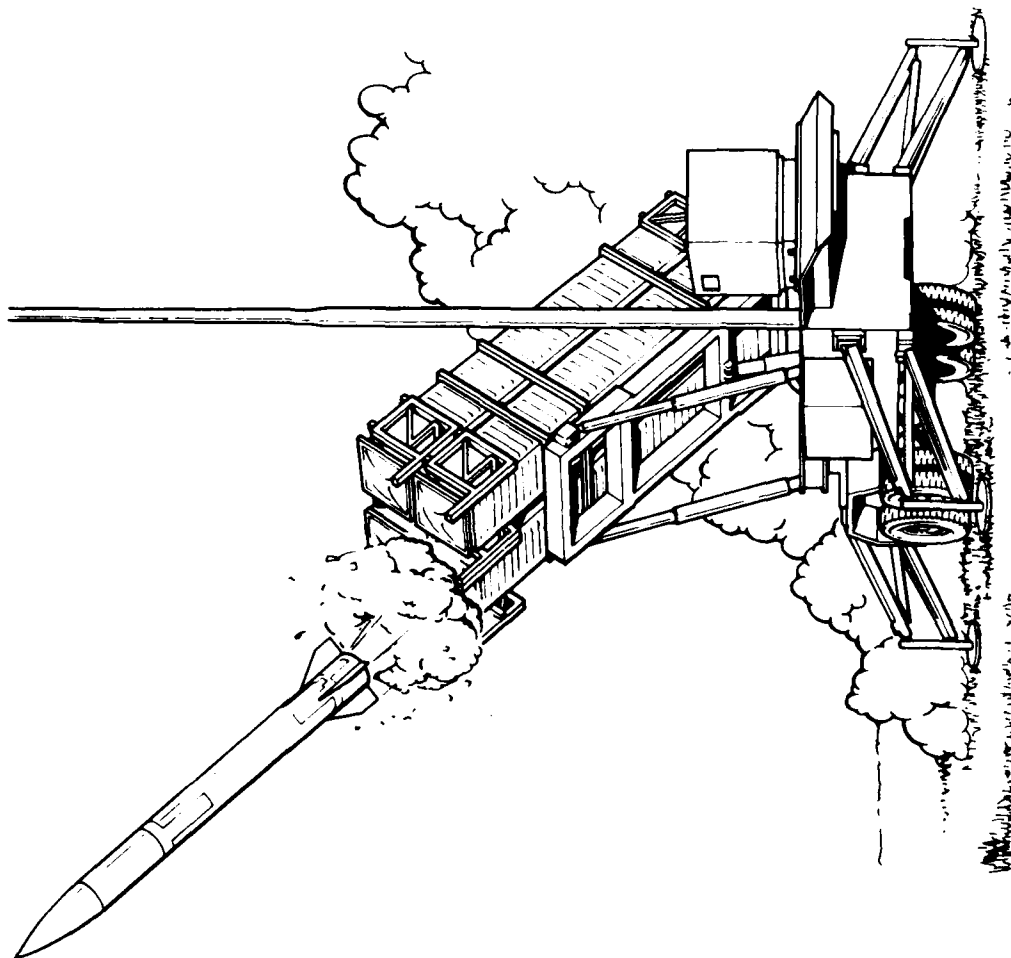
AUTHORIZED FUNDING CONTRACT ALLOCATED 91% INHOUSE REMAINING 9%

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
S U M M A R Y P R O J E C T S T A T U S R E P O R T
2ND SEMIANNUAL SUBMISSION CY 83 RLS DRGNT-301

| PROJECT NO. | TITLE + STATUS | AUTHOR- RIZED | CONTRACT VALUES | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|-------------|---|------------------|--------------------|---|---|--|
| | | | | | | |
| P 01 3050 | EPITAXY OF III-V SEMICONDUCTOR PHOTODETECTORS RCA CORP. BREADBOARDED FOUR AMPLIFIER CIRCUITS. LOOKING FOR A 15 MHZ BANDWIDTH AND 40 DB DYNAMIC RANGE. FIRST SAMPLES WERE STARTED IN NOVEMBER 1983 AND MET OPTICAL AND ELECTRICAL REQUIREMENTS. A TEST EXERCISER WAS BUILT. MATERIAL IS IN-GA-AS-P. | 670.0 | 586.2 | 37.0 | DEC 83 | SEP 85 |
| P 02 3054 | PRODUCTION METHODS FOR MULTI-LAYER FOLDED CIRCUITS HUGHES SELECTED COMPATIBLE MATERIALS + DEVELOPED PROCESS SPECS FOR MULTILAYER RIGID-FLEX CIRCUIT BOARDS. A 4 1/2 MONTH SLIPAGE HAS OCCURRED DUE TO HUGHES BUILDING 100 PILLT SAMPLES USING INCORRECT DWGS. ERROR WILL NOT BE CHARGED TO THE GOVT. | 780.1 | 706.1 | 73.9 | SEP 82 | JUN 84 |
| P 03 3055 | ELECTROLUMINESCENT NUMERIC MODULES KOCHELL/CULLINS CONTRACT WAS MODIFIED TO PROVIDE EL DISPLAY PANELS FOR DMU + F1STDM. DISPLAY LUMINANCE IS 150 FOOTLAMBERTS WHICH EXCEEDS SPEC. CERAMIC PACKAGES RECEIVED BUT DECODER-DRIVER CHIPS ARE STILL UNDERGOING ITERATIONS BY SUBCONTRACTOR. | 1,270.7 | 1,131.7 | 139.0 | DEC 82 | NOV 84 |
| P 04 3057 | HIGH STABILITY VIBRATION RESISTANT QUARTZ CRYSTALS FREQUENCY ELECTRONICS HAD COST OVERRUN IN BUILDING PILOT LINE FOR 5 MHZ 3C CUT QUARTZ CRYSTALS. \$500K PROPOSAL TO COMPLETE WORK HAS BEEN SUBMITTED. ACHIEVEMENTS INCLUDE PARALLEL GAP WELDING, SEALING, PLATING AND A CRYSTAL HANDLING ROBOTICS SYSTEM. | 1,261.3 | 1,193.6 | 67.7 | JUL 83 | FEB 85 |
| P 05 3068 | INCREASE PRODUCEABILITY OF VARACTORS AND PIN DIODES CU-PLANAR CONTACT-SIDE VIA-HOLE GAAS VARACTOR CHIP DESIGN IS ABANDONED. PROCESS NOW INCORPORATES THERMAL EPITAXY AND ION IMPLANT. DEEP LEVEL TRAP MEASUREMENT EQ IS SETUP. PROBLEMS WITH THE UXTUE/NITRIDE PASSIVATION PROCESS STILL EXIST. | 215.0 | 210.0 | | JUL 85 | JUL 85 |
| P 06 3070 | TACTICAL GRAPHICS DISPLAY PANEL GTE RESOLVED HIGH LINE RESISTANCE + SHORTING PROBLEMS FOR 10X12 IN. THIN FILM ELECTROLUMINESCENT DISPLAY PANELS. BRIGHTNESS ACHIEVED IS BETWEEN 60 TO 100 FOOTLAMBERTS. EXERCISER WAS COMPLETED + DEMONSTRATED ON A CRT. NEW INSULATOR WILL BE TRIED. | 950.0 | 881.6 | 59.4 | DEC 84 | MAR 85 |
| P 07 3083 | MM WAVE COMMUNICATIONS FRONT END MODULE (CFEM) MICROWAVE ASSOCIATES DESIGNED THE MIXER, IF AMPLIFIER, DETECTOR, ISOLATOR AND VOLTAGE CONTROLLED OSCILLATOR FOR THE MILLIMETER WAVE COMMAND POST RADIO. A LOCK-ON MODULE IS BEING CONSIDERED. DESIGN OF THE PIN DIODE ATTENUATOR, COUPLER + FILTER CONT. | 1,090.0 | 764.0 | 77.3 | JUN 84 | SEP 85 |
| P 08 3094 | COMMUNICATIONS TECHNOLOGY TECHMOD FOR JTIDS CULLINS DEVELOPED PRELIMINARY SPECS FOR A WORK CELL FOR PLACING SURFACE MOUNTED COMPONENTS ON PRINTED CIRCUIT BOARDS. ALSO WROTE A SPEC FOR DATA AND DISTRIBUTION SYSTEM. NO CONTRACT HAS BEEN SIGNED WITH SINGER NEARFOTT YET BUT EXPECTED IN FEB. 1984. | 1,054.0 | 1,043.7 | 10.3 | SEP 84 | FEB 85 |

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
S U M M A R Y P R O J E C T S T A T U S R E P O R T
2ND SEMIANNUAL SUBMISSION CY 83 KCS DRCMT-301

| P R O J N O . | T I T L E + S T A T U S | A U T H O - R I Z E D (\$000) | C O N T R A C T V A L U E S (\$000) | E X P E N D E D L A B O R A N D M A T E R I A L (\$000) | O R I G I N A L P R O J E C T E D C O M P L E T E D A T E | P R E S E N T P R O J E C T E D C O M P L E T E D A T E |
|---------------|---|-------------------------------------|---|---|--|--|
| | | | | | | |
| F 01 9051 | TACTICAL MINIATURE CRYSTAL OSCILLATORS BENDIX SELECTED MICROPLASMA WELDING SYSTEM FOR SEALING 1 CC. IN. PROTOTYPE TMX. ENGR SAMPLE SUBMISSION HAS SLIPPED 5 MONTHS DUE TO SUBCONTRACTOR DELAYS IN DELIVERING HYBRID PACKAGES. VACUUM ASSY PROCESSES INCLUDE BRAZING, BONDING, AND OUTGASSING. | 1,067.2 | 1,057.2 | 10.0 | MAR 84 | FEB 85 |
| 2 70 9090 | QUOTEDIZED TACTICAL FIBER OPTIC CABLES ITT HAS NOT ADEQUATELY ADDRESSED LOW TEMPERATURE ATTENUATION. PILOT LINE CABLES HAD LOSS GREATER THAN 1000/KM SPEC. SUCCESSFUL PERFORMANCE OF SOME CABLES IS BECAUSE OF FIBER PRE-SELECTION. CLOSE TOLERANCE FIBER MADE FOR WESTERN ELEC. PERFORMING OK. | 314.5 | 292.5 | 24.0 | NOV 79 | APR 84 |
| F 79 9930 | THREE COLOR LIGHT EMITTING DIODE DISPLAY UNIT ALL WORK ON THIS PROGRAM HAS BEEN COMPLETED EXCEPT THE FINAL REPORT. AN INDUSTRY DEMONSTRATION WAS HELD ON SEPT. 20, 1983. THE ARMY SYSTEM FOR IMPLEMENTATION OF THIS PROJECT HAS BEEN PHASED OUT. HOWEVER, OTHER SERVICES MAY HAVE APPLICATIONS. | 550.0 | 497.0 | 58.0 | SEP 81 | MAR 84 |



MISSILE COMMAND (MICOM)

M I S S I L E C O N T R A C T
CURRENT FUNDING STATUS, 240 CY85

| FISCAL YEAR | NO. OF PROJECTS | AUTHORIZED FUND (\$) | CONTRACT ALLOCATED (\$) | PERCENT EXPENDED % | IN HOUSE REMAINING (\$) | EXPENDED (\$) |
|--------------------|--------------------|-----------------------------|-----------------------------|--------------------------|--------------------------------|-------------------|
| 79 | 1 | 400,000 | 200,000 | (100%) | 200,000 | 200,000 (100%) |
| 80 | 1 | 500,000 | 298,800 | (98%) | 1,200 | 1,200 (100%) |
| 81 | 5 | 3,815,000 | 2,951,300 | (94%) | 863,700 | 475,900 (71%) |
| 82 | 10 | 5,965,000 | 3,918,600 | (65%) | 2,046,400 | 951,500 (40%) |
| 83 | 7 | 2,365,000 | 1,596,100 | (61%) | 868,900 | 167,100 (23%) |
| TOTAL | 24 | 12,045,000 | 9,064,800 | (74%) | 3,580,200 | 1,806,000 (50%) |
| AUTHORIZED FUNDING | | CONTRACT ALLOCATED 74% | | IN-HOUSE REMAINING 26% | | |

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
SUMMARY PROJECT STATUS REPORT
2ND SEMIANNUAL SUBMISSION CY 83 RCS ORCMT-301

| PROJECT NO. | TITLE + STATUS | AUTHOR- RIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|-------------|---|-----------------------------|-------------------------------|---|---|--|
| | | | | | | |
| 1000 1060 | PRODUCTION OF COMPOSITE KAOHME STRUCTURES KAOHME IS PLANNING AN INDUSTRY DEMO AND THE FINAL REPORT IS BEING WRITTEN. THE CURING EQUIPMENT BECAME OPERATIONAL AND A PERSHING KAOHME WAS STARTED INTO THE CYCLE. THE FIRST PATRIOT KAOHME WAS ASSEMBLED AND PRESSED. AN INTEGRATED ASSY DID NOT WORK. | 755.0 | 543.6 | 174.8 | SEP 83 | SEP 83 |
| 1000 1071 | REPLACEMENT OF ASBESTOS IN ROCKET MOTOR INSULATIONS NO PROGRESS MADE. | 475.0 | 420.0 | 55.0 | MAR 84 | APR 84 |
| 1000 1081 | REPLACEMENT OF ASBESTOS IN ROCKET MOTOR INSULATIONS WORK IS PROCEEDING SUCCESSFULLY. KEVLAR FILLED PROPELLANT GRAIN INHIBITORS PROVED TO BE EQUAL TO ASBESTOS FILLED INHIBITORS. KEVLAR FILLED SMOKELESS INSULATIONS WERE TESTED AND ARE BEING ANALYZED. WORK IS LEADING TO THE TEST PHASE IN THE OTHER WORK. | 380.0 | 246.8 | 51.2 | APR 84 | APR 84 |
| 1000 1080 | ELECTRICAL TEST AND SCREENING OF CHIPS ===== DELINQUENT STATUS REPORT ===== | 395.0 | 235.5 | 129.4 | DEC 83 | DEC 84 |
| 1000 1075 | REAL TIME ULTRASONIC IMAGING THE MACHINE STRUCTURE AND ARCHITECTURE IS SO DEVISED AS TO ALLOW IMPLEMENTATION AS A STAND ALONE OR A HOST OPERATED SYSTEM. THE INTERNAL CONTROLLERS ARE PARTITIONED INTO LOGICAL WORK STATIONS. THE END OF PROJECT DEMONSTRATION WAS HELD IN NOV 1982. THE 10MM MOTION PICTURE FILM WAS DELIVERED IN DEC 1983. THE CONTRACT WILL BE COMPLETED IN APRIL 84. THE UNIT WILL BE SHIPPED TO MICOM UPON CONTRACT COMPLETION. | 960.0 | 839.4 | 126.6 | JAN 84 | APR 84 |
| 1000 1070 | ELECTRONICS COMPUTER AIDED MANUFACTURING (ECAM) BATTELLE REVISED THE DRAFT MASTER PLAN AND DELIVERED THE DRAFT FINAL REPORT. THE MASTER PLAN INCLUDED A SEQUENCE OF 69 MANUFACTURING STEPS AND A LIST OF 103 MMT PROJECT TITLES. | 1,985.0 | 1,817.9 | 167.0 | SEP 81 | MAR 84 |
| 1000 1075 | ELECTRONICS COMPUTER AIDED MANUFACTURING (ECAM) NO WORK HAS BEEN DONE ON THIS FY83 PORTION. BATTELLE REVISED THE DRAFT MASTER PLAN AND DELIVERED THE TASK 3 REPORT FROM THE FY81 PROJECT. IT CONTAINS 500 PAGES OF IDEF CHARTS ON 7 TECHNOLOGIES. | 265.0 | | | DEC 86 | DEC 86 |
| 1000 1070 | AUTOMATIC RECOGNITION OF CHIPS KOLINEK + JUEFA CANNOT FINISH WORK DUE TO COST GROWTH. AUTOMATIC HYBRID DIE BINDER + SOFTWARE ARE WITHIN 5 PERCENT AND 15 PERCENT OF COMPLETION RESPECTIVELY. US AIR FORCE OFFER TO ABSORB COST NEEDED TO COMPLETE THE EFFORT IS UNDER EVALUATION. | 700.0 | 495.8 | 204.1 | FEB 84 | AUG 84 |

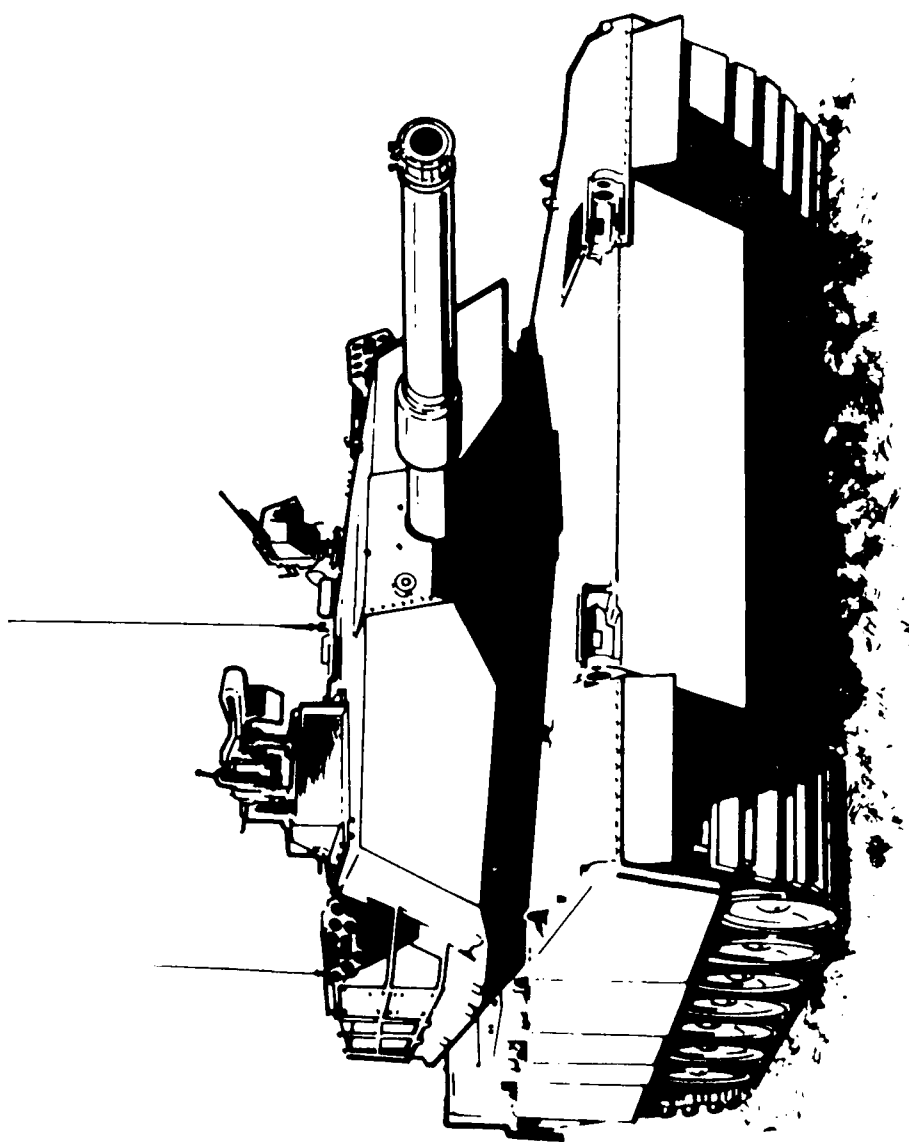
MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
S U P P L Y P R O J E C T S T A T U S R E P O R T
240 SEMIANNUAL SUBMISSION CY 83 RCS DRGMT-301

| ACCT NO. | TITLE + STATUS | AUTHO- RIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|----------|---|----------------------------|-------------------------------|---|---|--|
| | | | | | | |
| 100 1080 | CORAL REPLACEMENT IN MARAGING STEEL-RACKET MOTOR COMPONENTS SCALE UP TO 14 INCH DIAMETER AND CONCEPT DEMONSTRATION HAVE BEEN STARTED AND PROGRAM IS ON SCHEDULE. | 400.0 | 452.7 | | JUL 84 | MAR 84 |
| 100 1085 | OPTIMIZED MARAGING TAB + UTILIZATION P/COMPOSITE MOTOR CASES THE PROGRAM IS IN A HOLD STATUS AWAITING A CASE INSULATOR FROM THE ELASTIMERIC INSULATION MMT PROGRAM. | 400.0 | 505.2 | 50.7 | MAY 83 | MAY 84 |
| 100 1087 | INTERNAL RACKET MOTOR COMPOSITE ATTACHMENTS THE CONTRACT WAS AWARDED TO HERCULES INC., BALTHUS WORKS, MAGNA, OHIO. STRUCTURAL REQUIREMENTS DETERMINATION, COMPONENT SELECTION, AND STATIC/DYNAMIC ANALYSIS HAVE BEEN COMPLETED. AN INTERIM REPORT WILL BE PREPARED. | 500.0 | 49.9 | | JUL 83 | FEB 84 |
| 100 1088 | RF AND LASER HARDENING OF MISSILE JUMES BATTELLE COLUMBUS DEVELOPED A PLATED-UP COPPER AND NICKEL SCREEN WHICH A POLYCARBONATE JUNE IS MOUNTED. THE SCREEN REJECTS SHOWN AT BATTELLE NW DEVELOPED AN INDIUM TIN LATEX COATING FOR PASSING A MICROANALYZER AND BLOCKING ALL OTHER FREQUENCIES. | 400.0 | 249.0 | 100.0 | MAY 82 | JUL 84 |
| 100 1089 | MICROFILM WIRE HARNESS ASSEMBLY SYSTEM REPORT SHOWS NO ACTION ACCOMPLISHED ON THIS PROJECT DURING THIS REPORTING PERIOD. | 1,000.0 | 501.5 | 209.0 | SEP 84 | MAR 85 |
| 100 1121 | MISSILE MANUFACTURING PRODUCTIVITY IMPROVEMENT PROGRAM A COPE OF WORK WAS PREPARED AND CONTRACT DOCUMENTS ARE IN THE APPROVAL CHAIN. MEETINGS HAVE BEEN HELD WITH NAVY AND AIR FORCE. MATRIX PARTIALITY WILL STUDY ITS PLANT AND DETERMINE WHAT MMT AND BUSINESS SYS MUST BE IMPLEMENTED FOR HELPFIRE PRODUCTION. | 300.0 | | | JUN 83 | |
| 100 1122 | MOUND ELASTOMER INSULATOR PROCESS STATUS REPORT RETURNED TO MICOM ON 20 MAR 84. IT WAS AN EXACT COPY OF THE ONE SUBMITTED FOR THE PREVIOUS REPORTING PERIOD. | 650.0 | 559.2 | 40.0 | MAR 84 | |
| 100 1126 | MOUND ELASTOMER INSULATOR PROCESS STATUS REPORT RETURNED TO MICOM ON 20 MAR 84. IT WAS AN EXACT COPY OF THE ONE SUBMITTED FOR THE PREVIOUS REPORTING PERIOD. | 625.0 | 611.2 | 1.0 | SEP 83 | JUL 84 |
| 100 1203 | PRINTED WIRING BOARDS UTILIZING LEADLESS COMPONENTS FOLLOW-ON TO 3 80 3263. HUGHES OPTIMIZED METHODS FOR ATTACHING LEADLESS CHIP CARRIERS (LCC) TO PRINTED CIRCUIT BOARDS. TASKS WERE PRETTINING, SOLDERING, BONDING, CONFORMAL COATING, + TESTING. ALL WORK IS COMPLETED EXCEPT FOR FINAL REPORT. | 400.0 | 107.8 | 10.0 | MAY 83 | MAR 84 |
| 100 1278 | TESTING OF ELECTRO-OPTICAL COMPONENTS AND SUBSYSTEMS ALL TECHNICAL WORK HAS BEEN COMPLETED. FINAL TECHNICAL REPORT DRAFT HAS BEEN RECEIVED AND APPROVED. THE FINAL REPORT MASTER AND COPIES WILL BE FORWARDED TO MICOM IN THE NEAR FUTURE. | 300.0 | | | | |

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
 S U B M I T T E D T O A T O S R E P O R T
 AND SEMIANNUAL SUBMISSION CY 83 FCS DRCHT-501

TITLE & STATUS

| | AUTEST KLOC | CONTRACT VALUE (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|--|----------------|------------------------------|---|---|--|
| 100-1000 | 350.0 | \$134.2 | 102.8 | SEP 83 | SEP 83 |
| <p>NON-ROAD PRINTED CIRCUIT BOARD ALL WORK HAS BEEN COMPLETED AND A FINAL STATUS REPORT WILL BE RECEIVED IN MARCH 84. MULTIPLE ELECTRICAL CIRCUIT BOARDS AND A MICROPROCESSOR ANTENNA WERE USED AS SAMPLES FOR DEVELOPING THE MANUFACTURING PROCESSES.</p> | | | | | |
| 100-1001 | 500.0 | \$74.3 | 111.0 | SEP 83 | SEP 84 |
| <p>LOW VOLTAGE PERFORMANCE CARBON-CARBON INJECTED STATUS REPORT RETURNED TO MIAMI ON 20 MAR 84. IT WAS ALMOST AN EXACT COPY OF THE ONE SUBMITTED FOR THE PREVIOUS REPORTING PERIOD. COMPLETION DATE WAS REPEATED TO 5/31/84, A 10 MONTH DELAY.</p> | | | | | |
| 100-1002 | 400.0 | 200.0 | 250.0 | SEP 79 | SEP 84 |
| <p>APPLICATION OF HIGH ENERGY LASER MANUFACTURING PROCESSES ALL WORK COMPLETED WAITING ON FINAL TECHNICAL REPORT.</p> | | | | | |
| 100-1003 | | | | SEP 84 | SEP 84 |
| <p>ALTERNATE PROCESS FOR IPDI SEESE PRELIMINARY STATUS REPORT 4/8/84</p> | | | | | |
| 100-1004 | 150.0 | | 5.0 | SEP 83 | SEP 83 |
| <p>ALTERNATE PROCESS FOR IPDI CONTRACT IS READY AND WILL BE LET SOON. IT WILL BE FOR APPROXIMATELY \$120K.</p> | | | | | |



TANK-AUTOMOTIVE COMMAND
(TACOM)

TANK - AUTUMNATIVE CLAMAND
CURRENT FUNDING STATUS, 2ND CY83

| FISCAL YEAR | NO. OF PROJECTS | AUTHORIZED FUNDS (\$) | CONTRACT FUNDS ALLOCATED (\$) | CONTRACT FUNDS EXPENDED (\$) | INHOUSE REMAINING (\$) | INHOUSE FUNDS EXPENDED (\$) |
|-------------|-----------------|-----------------------|-------------------------------|------------------------------|------------------------|-----------------------------|
| 77 | 1 | 750,000 | 742,200 | 742,200 (100%) | 7,800 | 0 (0%) |
| 78 | 1 | 520,000 | 233,800 | 233,800 (100%) | 286,200 | 233,800 (100%) |
| 79 | 2 | 1,071,000 | 1,602,000 | 1,192,000 (70%) | 189,000 | 107,000 (100%) |
| 80 | 2 | 2,304,000 | 2,076,900 | 1,614,900 (77%) | 229,100 | 121,000 (71%) |
| 81 | 12 | 9,386,000 | 1,773,100 | 1,426,600 (80%) | 7,614,900 | 5,975,800 (77%) |
| 82 | 20 | 10,220,000 | 7,536,900 | 4,761,400 (63%) | 2,665,100 | 1,231,100 (45%) |
| 83 | 13 | 8,031,000 | 4,823,900 | 3,573,100 (72%) | 1,257,100 | 82,000 (6%) |
| TOTAL | 39 | 31,134,000 | 16,870,800 | 11,551,200 (61%) | 12,263,200 | 9,076,700 (57%) |

AUTUMNATIVE FUNDING CONTRACT ALLOCATED 61% INHOUSE REMAINING 39%

S U B M A R Y P R O J E C T S T A T U S R E P O R T
MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
2ND SEMI-ANNUAL SUBMISSION CY 83 RCS DRCHT-301

TITLE + STATUS

| | | AUTHORIZED VALUES (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|---------|---|---------------------------------|-------------------------------|---|---|--|
| 77 3749 | HYDRAULIC ROTARY ACTUATORS ORIGINAL AND MODIFIED ACTUATORS WERE VEHICLE TESTED. PRODUCTIVITY PLAN AND CRITICAL ITEM SPECIFICATION HAVE BEEN DELIVERED. THE TECHNICAL DATA PACKAGE IS COMPLETE PENDING ECP APPROVAL. | 750.0 | 742.2 | | MAY 79 | JUN 84 |
| 77 3749 | HYDRAULIC ROTARY ACTUATORS SEE MMT E 77 3749. | 140.0 | 143.9 | | DEC 81 | SEP 84 |
| 77 3749 | HYDRAULIC ROTARY ACTUATORS FOR M9 SEE MMT E 77 3749. PREVIOUS TEST EQUIP PROBLEMS HAVE BEEN CORRECTED. CONTRACTOR INTENDS TO REQUEST AN EXTENSION AN CONDUCT 100 HOURS OF ENDURANCE TESTING AND COMPLETE FINAL TEST REPORT. | 157.0 | 146.0 | | JUL 81 | SEP 84 |
| 77 4004 | TRACK INSERTS AND FILLERS FOR TRACK RUBBER PADS FORSLUN TEST MACHINE HAS BEEN INSTALLED AND INITIAL TESTING IS UNDERWAY. MIL-T-11891 SPEC NOW BEING CHANGED TO INCLUDE ALL RECENT AND FUTURE IMPROVEMENTS IN TRACK RUBBER COMPONENTS. FINAL DOT IS NOW BEING GENERATED AND SHOULD BE COMPLETED BY JUNE 84. | 540.0 | 253.8 | 286.2 | JAN 81 | JUN 84 |
| 77 4020 | LASER WELDING TECHNIQUES FOR MILITARY VEHICLES CONTRACT AWARDED. CURRENTLY ADDRESSING PURSITY PROBLEM THROUGH DEBRUIANTS AND BEAM OSCILLATION. | 248.0 | 224.0 | 22.0 | DEC 84 | FEB 85 |
| 77 4025 | COMPUTER AIDED DESIGN FOR GILD FORGED GEARS (PHASE I) THE COMPUTER PROGRAM, GEAROI, DEVELOPED IN THIS PHASE CORRECTED TOOL GEOMETRY FOR ELASTIC DEFORMATION, MOLIFY GEOMETRY FOR TEMPERATURE DIFFERENTIALS, AND COMPUTE WIRE ELECTRICAL DISCHARGE MACHINING PATHS FOR MANUFACTURING BOTH THE DIE AND PUNCH. | 307.0 | 256.0 | 25.0 | JAN 84 | MAR 84 |
| 77 4025 | COMPUTER AIDED DESIGN FOR GILD FORGED GEARS (PHASE II) A SPUR GEAR, EATON PART NUMBER 27952, AND A HELICAL GEAR, EATON PART NUMBER 49221, WERE APPROVED FOR FURGING. | 376.0 | 346.0 | 13.5 | JUL 85 | CI 85 |
| 77 4014 | FOUNDARY CASTING PROCESSES USING FLUID FLOW + THERM ANALYSIS SOFTWARE PROCEDURES WERE UPDATED TO IMPROVE GEOMETRIC CAPABILITIES. WORK PROGRESSED ON DOCUMENTATION PREPARATION FOR END OF CONTRACT PRESENTATION AND FINAL REPORT. ALL TECHNICAL WORK IS COMPLETED. | 100.0 | 80.0 | 17.0 | MAR 84 | JUN 84 |
| 77 4014 | STORAGE BATTERY LOW MAINTENANCE FIELD TESTS CONTINUE AT YPG, CRIC AND CRANE LABS. BATTERY PROTOTYPE PERFORMANCE CHARACTERISTICS TEST RESULTS TO DATE EXCEED EXPECTED RESULTS. FIELD TESTS NOW APPROX 85PCT COMPLETE. TESTING EXTENDED 4 MONTHS TO ALLOW TESTING THRU TEMPERATURE EXTREMES. | 130.0 | | 80.0 | JAN 84 | AUG 84 |

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
SUMMARY PROJECT STATUS REPORT
2ND SEMIANNUAL SUBMISSION CY 83 RCS DRGHT-301

DATE TITLE + STATUS

| NO. | DATE | TITLE + STATUS | AUTHORIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|-----|----------|---|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| 1 | 01/01/84 | GEAR JIG DESIGN + MFG UTILIZING COMPUTER TECHNOLOGY (I&M) THE MOVIE ON CAL/CAM OF SPIRAL BEVEL GEARS HAS BEEN APPROVED. A 10.5 INCH SPIRAL BEVEL GEAR HAS BEEN SELECTED FOR FORGING. THE SPIRAL BEVEL GEAR PROGRAM, SERVIC, WAS EXECUTED TO PREDICT SETTINGS TO PRODUCE THE LOW FLECTURES TO CUT THE FORGING DIES. | 425.0 | 287.0 | 33.0 | SEP 83 | NOV 84 |
| 2 | 01/01/84 | FABRICATION TECHNIQUES FOR HI STRENGTH STRUCTURAL CERAMICS AMMRC HAS INITIATED EFFORTS TO HOT PRESS COMPOSITES OF S13N4 AND VARYING LAYERS OF ZR02 C0.7H. | 500.0 | 340.0 | 103.0 | JUN 83 | FEB 84 |
| 3 | 01/01/85 | ADAPTATIC DIESEL ENGINE COMPONENTS (PHASE II) CONTRACTOR HAS INITIATED EFFORTS TO OPTIMIZE MATERIAL AND MANUFACTURING TECHNOLOGIES. | 400.0 | 350.0 | 0.0 | FEB 85 | JAN 85 |
| 4 | 01/01/84 | LAYER SURFACE HARDENED COMBAT VEHICLE COMPONENTS PILLET HEAT TREATING OF TEST SAMPLES IS COMPLETE. SAMPLES HAVE BEEN DELIVERED TO TACOM FOR EVALUATION AND MARKING. LABORATORY TESTING IS COMPLETE. FIELD TESTING HAS BEEN INITIATED. FINAL REPORT IS BEING PUBLISHED AND DISTRIBUTED. | 175.0 | 120.0 | 54.0 | SEP 83 | JAN 84 |
| 5 | 01/01/84 | LAYER SURFACE HARDENED COMBAT VEHICLE COMPONENTS CASEIN HEAT TREATING OF HARDWARE IS COMPLETE. HARDWARE TESTING IS COMPLETE. FINAL REPORT IS BEING DRAFTED. ESTABLISHMENT OF AN END OF PROJECT DEMONSTRATION HAS BEEN INITIATED. | 170.0 | 123.0 | 37.0 | JAN 84 | JAN 84 |
| 6 | 01/01/84 | LIGHT WEIGHT SADDLE TANK (PHASE III) GEAR DEVELOPED AT RETURN LINE WHICH HAS DELAYED TESTING AT APG. NEW TESTS WERE REQUESTED BY POTENTIAL USERS PRIOR TO THEIR IMPLEMENTATION. THESE ARE BEING CARRIED OUT UNDER FY83 FUNDING. | 80.0 | | 85.0 | SEP 83 | JUN 84 |
| 7 | 01/01/84 | LIGHT WEIGHT SADDLE TANK (PHASE III) NEW TESTING TO SATISFY FEDERAL MOTOR SAFETY REGULATIONS CONTINUE. POTENTIAL USERS WHO WOULD IMPLEMENT PROJECT RESULTS ARE THE INTERESTED PARTIES. | 120.0 | | 73.1 | JUN 84 | JUN 84 |
| 8 | 01/01/84 | PLASTIC BATTERY BOX MODIFICATIONS TO BATTERY BOX LID ARE BEING MADE BY CONTRACTOR. THIS IS NECESSARY TO COMPLY WITH MULTI-TEMPERATURE STRESS TEST. THIS ADDITIONAL TESTING WAS REQUESTED BY DRSTA-G FOR THE 5-TON VEHICLE. TEST RESULTS MAY AFFECT TOP. | 85.0 | | 80.0 | DEC 82 | MAY 84 |
| 9 | 01/01/84 | NEW ANTI-CORROSIVE MATERIALS AND TECHNIQUES (PHASE II) CONTRACTOR IS PREPARING FINAL TECHNICAL REPORT. | 450.0 | 419.0 | 45.0 | SEP 82 | JUN 84 |
| 10 | 01/01/84 | NEW ANTI-CORROSIVE MATERIALS AND TECHNIQUES (PHASE III) SCOPE OF WORK REVISED. PROCUREMENT ACTION INITIATED FOR PHASE III. | 142.0 | 80.0 | | | |

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
SUMMARY PROJECT STATUS REPORT
2ND SEMIANNUAL SUBMISSION CY 83 RCS DRMT-301

TITLE + STATUS

| PROJECT NO. | TITLE + STATUS | AUTHORIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|-------------|--|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| 01 5075 | MILITARY ELASTOMERS FOR TRACK VEHICLES (PHASE II) T152 TRACK PADS HAVE BEEN MANUFACTURED. TESTING OF THE T156 (ABRAMS M1) TRACK SHOE IS ONGOING. | 200.0 | 55.3 | 95.4 | SEP 82 | SEP 84 |
| 02 5075 | MILITARY ELASTOMERS FOR TRACK VEHICLES (PHASE II) T142 TRACK PADS HAVE BEEN MANUFACTURED AND TESTED. ALSO T142 TRACK PADS CONTAINING KEVLAR FIBER HAVE BEEN MANUFACTURED. T152 TRACK PADS ARE CURRENTLY BEING TESTED. | 200.0 | 52.0 | 103.0 | SEP 83 | SEP 84 |
| 03 5075 | MILITARY ELASTOMERS FOR TRACK VEHICLES PROCUREMENT ACTION AND TESTING ARRANGEMENTS ARE BEING MADE FOR T156 (ABRAMS M1) TRACK SHOES. | 150.0 | | 6.7 | JAN 86 | JAN 86 |
| 04 5082 | FLEXIBLE MACHINING SYSTEM, PILOT LINE FOR TCV COMPLMENTS THE FMS HANDBOOK IS BEING UPDATED. A SEMINAR AND PRESENTATION ON THE PROGRAM AND TECHNOLOGY ARE PLANNED. BATCHING AND SCHEDULING SOFTWARE SUPPORTING M1 TURRET STABILIZATION COMPONENTS WAS DEVELOPED. ASSISTANCE TO M2/M3. SEE MMT PROJECT 4 83 5082. | 750.0 | 607.9 | 105.1 | MAR 83 | MAY 84 |
| 05 5084 | FLEX MACHINING SYS (FMS) PILOT LINE F/TLV CLMPS (CAM) (PH V) SEE MMT PROJECT 4 82 5082. SUSPENSION COMPONENTS MANUFACTURER WAS PROVIDED. THIS EFFORT INCLUDED MODELING BATCH MODE OPERATIONS, ALTERNATE PRODUCTION STRATEGIES AND CAPACITY. | 500.0 | 349.9 | | OCT 84 | OCT 84 |
| 06 5082 | UPSCALING OF ADVANCED POWDERED METALLURGY PROCESSES-PH 3 THE CIES FOR THE M2/M3 GEAR HAVE BEEN DESIGNED BY THE INTERACTIVE COMPUTER PROGRAM. | 325.0 | 230.0 | 104.0 | MAR 81 | JUN 84 |
| 07 5082 | UPSCALING OF ADVANCED POWDERED METALLURGY PROCESSES-PH 4 THE FUNDS FROM THIS PROJECT HAVE BEEN UTILIZED TO MONITOR PROJECT T795083. | 30.0 | | 27.0 | SEP 83 | NOV 84 |
| 08 5080 | IMPROVED AND COST EFFECTIVE MACHINING TECHNOLOGY (PHASE IV) FINAL DRAFT OF TECH REPORT HAS BEEN REVIEWED AND HANDBOOKS HAVE BEEN DELIVERED. | 250.0 | 213.0 | 36.0 | JUN 84 | JAN 84 |
| 09 5075 | IMPROVED AND COST EFFECTIVE MACHINING TECHNOLOGY (PHASE V) CONTRACTOR HAS SELECTED 4 OF 6 CANDIDATE COMPONENTS WHICH WILL BE USED TO SHOW FEASIBILITY OF NON TRADITIONAL MACHINING PROCESSES APPLICATION. | 123.0 | 69.0 | 35.0 | SEP 84 | SEP 84 |
| 04 5081 | HEAVY ALUMINUM FLATE FABRICATION (PHASE II) ALUMINUM ARMOR PLATE + WELDING ELECTRODES ORDERED. HOLDING FIXTURES AND WELD JOINTS DESIGNED. | 100.0 | | 72.0 | MAR 84 | SEP 84 |

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
SUMMARY PROJECT STATUS REPORT
2ND SEMIANNUAL SUBMISSION CY 83 MCS DRGMT-301

| PROJ NO. | TITLE + STATUS | AUTHORIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|--------------|--|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| 1 03 0094 | HEAVY ALUMINUM PLATE FABRICATION (PHASE I) ARMOR PLATE AND WELDING ELECTRODES ON ORDER. HOLDING FIXTURE DESIGNED. TEST RUNS TO DETERMINE CURRENT AND SPEED SETTINGS OF PLASMA TORCH UNDERWAY. | 70.0 | 70.0 | 35.0 | DEC 84 | DEC 84 |
| 1 03 0011 | SPRINGS FROM FIBER/PLASTIC COMPOSITES 10 REAR SPRING ASSYS WERE FATIGUE TESTED BY TACUM. THEY FAILED PREMATURELY AT 20 PERCENT OF THE REQD NUMBER OF CYCLES. IF IN-HOUSE FUNDS PERMIT, A SHORT STEEL LEAF WILL BE ADDED TO IMPROVE FATIGUE LIFE BY DISTRIBUTING BENDING FORCES. | 150.0 | 143.0 | 15.0 | JAN 83 | 4AR 84 |
| 1 03 0014 | SPRINGS FROM FIBER/PLASTIC COMPOSITES FRONT SPRING ASSYS ARE SCHEDULED TO BE DELIVERED TO TACUM IN FEB 84. THEY WILL BE TESTED IN-HOUSE TO VERIFY SPRING RATE AND FATIGUE LIFE. | 137.0 | 73.0 | 25.0 | JUN 83 | 4AR 84 |
| 1 03 0020 | PRODUCTION QUALITY CONTROL BY AUTOMATED INSPECT EQUIPMENT THE AIDS EQUIP EVALUATION IS INCLUDED IN A TACUM M113 INSPECT + REPAIR PROGRAM AT KRAD. THE 1+R EVALUATION WILL RUN FROM JAN 84 TO THE END OF THE FY. HARDWARE AND SOFTWARE CHANGES TO THE AIDS ARE REQUIRED FOR IMPLEMENTATION. | 60.0 | 47.8 | 12.2 | JUL 82 | 111 84 |
| 1 03 0030 | HIGH DEPOSITION WELDING WELDING PARAMETERS WERE ESTABLISHED AND BALLISTIC PLATES WELDED AND SATISFACTORILY TESTED. PLASMA MIG DETERMINATION OF WELDING OPERATIONS BEING MADE. | 1,543.0 | 1,478.0 | 65.0 | JUL 80 | JUN 83 |
| 1 03 0030 | HIGH DEPOSITION WELDING SUBMERGED ARC WELDING PROCEDURES ARE PROGRESSING WELL WITH FLUX COATED ELECTRODES AND WITH POWDER ADDITIONS. WELDING OF NARROW GAP GROOVES IS LOOKING FAVORABLE. | 1,503.0 | 1,478.0 | 25.0 | DEC 84 | 4PR 84 |
| 1 03 0054 | ADVANCED METROLOGY SYSTEMS INTEGRATION SEE PROJECT T 83 6054 FOR STATUS. | 848.0 | 320.0 | 10.0 | FEB 85 | JUN 85 |
| 1 03 0054 | ADVANCED METROLOGY SYSTEMS INTEGRATION (PHASE II) ALL TASK FOR PHASE I HAVE BEEN COMPLETED, AND THE GUIDELINES FOR FUTURE TMS HAVE BEEN ESTABLISHED. HOWEVER, THE SIMULATION MODEL COMPUTER SOFTWARE PROGRAM REQUIRES MODIFICATION, SINCE IT IS NOT COMPATIBLE WITH TALUMS PRIME COMPUTER SYSTEM. | 100.0 | | 60.0 | DEC 85 | 315 85 |
| 1 03 0057 | AM1 COMBAT VEHICLE SEE SUBTASKS. | 2,502.0 | 1,462.0 | 14.0 | SEP 83 | NOV 84 |
| 1 03 0057 03 | AUTOMATED METALLIZING AUTOMATED METALLIZING WAS CANCELLED BECAUSE GENERAL DYNAMICS HAS IMPROVED THE PROCESS AND THE PROPOSED TASK IS NO LONGER COST EFFECTIVE. | 51.0 | | | | |

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
SUMMARY PROJECT STATUS REPORT
2ND SEMIANNUAL SUBMISSION CY 83 RCS DRCMT-301

| PROJ NO. | TITLE + STATUS | AUTHORIZED | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|--------------|---|------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| T 82 6057 00 | MACHINE DIAGNOSTICS CONTRACT AWARDED TO GENERAL DYNAMICS. SUBCONTRACT AWARDED TO SHAKER RESEARCH CORP. | 50.0 | | 6.0 | SEP 83 | DEC 84 |
| T 82 6057 13 | LASER CUTTING CONTRACT AWARDED TO GENERAL DYNAMICS. WORK ORDERS AND SAMPLE MATERIALS WERE ISSUED TO SIX SUBCONTRACTORS WHO WILL CUT TEST PATTERNS FOR EVALUATION. | | | | MAY 83 | MAY 84 |
| T 83 6057 | ADAMS M1 COMBAT VEHICLE SEE SUBTASKS. | 70.0 | | 5.0 | FEB 84 | SEP 85 |
| T 83 6057 03 | AUTOMATED METALLIZING AUTOMATED METALLIZING WAS CANCELED BECAUSE GENERAL DYNAMICS HAS IMPROVED THE PROCESS AND THE PROPOSED TASK IS NO LONGER COST EFFECTIVE. | | | | FEB 84 | DEC 84 |
| T 83 6057 13 | LASER CUTTING OF TRACKED COMBAT VEHICLE PARTS SEE 4 82 6057-13. | | | | FEB 84 | MAY 84 |
| T 83 6059 | LARGE CAST ALUMINUM COMPONENTS SEE SUBTASKS. | 2,159.0 | 1,945.0 | 161.0 | JUL 81 | DEC 84 |
| T 83 6059 01 | M2 AND M3 CAST ALUMINUM COMPONENTS DRAFT OF FINAL REPORT FOR PHASE 1 SUBMITTED FOR REVIEW AND APPROVAL. | 738.0 | 720.0 | 18.0 | | SEP 84 |
| T 83 6059 02 | SELF-THREADING FASTENERS PHYSICAL WORK COMPLETE. IMPLEMENTATION UNDERWAY. FINAL REPORT PREPARATION UNDERWAY. | 116.0 | | | | JUN 84 |
| T 83 6059 03 | ADHESIVE BONDING SEE STATUS FOR T 82 6059-03. | 170.0 | 125.0 | 45.0 | | SEP 84 |
| T 83 6059 06 | LASER HEAT TREATING MATERIAL HAS BEEN PROCURED FOR ALL ELEMENTS OF THIS TASK. APPROPRIATE FIXTURES AND HARDWARE HAVE BEEN FABRICATED. LASER HEAT TREATING AND METALLURGICAL TESTING HAVE BEEN COMPLETED. | 257.0 | 237.0 | 20.0 | | DEC 84 |
| T 83 6059 08 | PRODUCTION METHODS FOR COMPOSITE TURRET BASKET SEE STATUS FOR T 82 6059-08. | 217.0 | 300.0 | 83.0 | | SEP 84 |

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
SUMMARY PROJECT STATUS REPORT
2ND SEMIANNUAL SUBMISSION CY 83 RCS DRGNT-301

| PROJ NO. | TITLE + STATUS | AUTHORIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|------------|--|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| 01 6059 | M2 AND M3 FIGHTING VEHICLE SYSTEM SEE SUBTASK. | 291.0 | 285.0 | 5.0 | NOV 84 | FEB 84 |
| 01 6059 04 | RESIN MOLDED COMPOSITE MATERIALS ALL TECHNICAL WORK HAS BEEN COMPLETED. THE FINAL REPORT IS BEING WRITTEN. | 291.0 | 285.0 | 5.0 | | FEB 84 |
| 02 6059 | M2 AND M3 FIGHTING VEHICLE SYSTEM SEE SUBTASK. | 490.0 | 445.0 | 40.0 | DEC 84 | SEP 84 |
| 02 6059 01 | M2 AND M3 CAST ALUMINUM COMPONENTS DRAFT OF FINAL REPORT FOR PHASE II SUBMITTED FOR REVIEW AND APPROVAL. | 490.0 | 445.0 | 40.0 | DEC 83 | JUL 84 |
| 02 6059 02 | SELF-THREADING FASTENERS PHYSICAL WORK COMPLETED. IMPLEMENTATION UNDERWAY. FINAL REPORT IN PREPARATION. | 130.0 | | | FEB 83 | JUN 84 |
| 02 6059 03 | ADHESIVE BONDING PRODUCTION APPLICATION TECHNIQUES HAVE BEEN ESTABLISHED AND LISTED. DRAWING CHANGES HAVE BEEN INITIATED. | 130.0 | 125.0 | | | SEP 84 |
| 02 6059 06 | LASER HEAT TREATING SIMULATED FIELD TESTING IS COMPLETE AND ACTUAL FIELD TESTING IS UNDERWAY. TEST EVALUATIONS HAVE BEEN INITIATED. | 130.0 | 100.0 | 18.0 | SEP 84 | DEC 84 |
| 02 6059 08 | PRODUCTION METHODS FOR COMPOSITE TURRET BASKET PROTOTYPE TEST PLAN AND TEST FIXTURES HAVE BEEN PROCURED, AND PROTOTYPE TESTING HAS BEEN INITIATED. | 131.0 | 100.0 | 7.0 | JUN 83 | SEP 84 |
| 02 6059 20 | CARC APPLICATION PROCESSING TECH ALL PAINT SAMPLES HAVE BEEN PROCURED AND DELIVERED TO THE CONTRACTOR. RUBBIC PAINTING EQUIPMENT HAS BEEN PROCURED, INSTALLED, AND DEBUGGED. RUBBIC CAMOUFLAGE PATTERNS AND MAINTENANCE REQUIREMENTS ARE BEING ESTABLISHED. | 418.0 | 368.0 | 18.0 | DEC 84 | MAY 85 |
| 03 6059 | M2 AND M3 FIGHTING VEHICLE SYSTEM SEE SUBTASKS. | 805.0 | 689.0 | 11.0 | APR 85 | NOV 85 |
| 03 6059 13 | METAL ARC SPRAYING INVESTIGATION OF PROCESSES AND PROCESS SPECIFICATION DEVELOPMENT ARE COMPLETE. PRELIMINARY PROCESS EVALUATION HAS BEEN INITIATED. | 310.0 | 260.0 | 25.0 | NOV 84 | JUL 85 |
| 03 6059 17 | PRE-PAINT CLEANING SYSTEM LITERATURE SURVEY HAS BEEN CONDUCTED AND PROJECT COORDINATION HAS BEEN ESTABLISHED WITH BRADC. TEST SPECIFICATION HAS BEEN ESTABLISHED. | 320.0 | | | | |

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
SUMMARY PROJECT STATUS REPORT
2ND SEMI-ANNUAL SUBMISSION CY 83 RCS DRGENT-301

TITLE + STATUS

AUTHORIZED (\$000) CONTRACT VALUES (\$000) EXPENDED LABOR AND MATERIAL (\$000) ORIGINAL PROJECTED COMPLETE DATE PRESENT PROJECTED COMPLETE DATE

6.079 19 SQUEEZE CAST RUD WHEELS
A TURRET MACH HAS BEEN DESIGNED SUITABLE FOR THE SQUEEZE CASTING PROCESS. SPECIFICATION EVALUATION HAS BEEN INITIATED.

170.0 154.0 4.0 APR 85 MAR 85

6.079 20 AUTOMATED DEFUT INSPECTION OF RUD WHEELS
ALL RUD WHEELS SCHEDULED FOR DESTRUCTIVE TESTING THROUGH MAY 1983 WERE ULTRASONICALLY TESTED. THE NDT DATA IS BEING STATISTICALLY COMPARED TO DETERMINE WHETHER A CORRELATION EXISTS. SOME 800 RUD WHEELS HAVE BEEN NOT TESTED.

247.0 275.0 22.0 SEP 83 MAY 84

6.079 21 AUT-1500 ENGINE
SEE SUBTASKS 1, 2, 3.

1,360.0 1,066.0 201.0 MAR 85 SEP 84

6.079 22 MUDCRYSTAL ALLOY FOR HIGH PRESSURE TURBINE BLADES
CASTING PARAMETERS SUCH AS POURING TEMPS, TEMP WINDOWS AND WITHDRAWAL RATES HAVE BEEN ESTABLISHED FOR THE ALLOY. QUALITY ANALYSIS IS IN PROGRESS AND BEING EVALUATED.

400.0 300.0 69.0 SEP 83 SEP 84

6.079 23 RAPIDLY SOLIDIFIED TECHNOLOGY (RST) NICKEL-BASE SUPERALLOY
CAST/CAST PROCESS DEFINITION AND VARIABILITY STUDY IS COMPLETED. POWER FOR THE HP TURBINE DISK WAS PRODUCED, CHARACTERIZED AND CONSOLIDATED INTO BILLETS. MOLDS SECTIONED FROM THE BILLETS WERE CROSS-ROLLED SUCCESSFULLY.

450.0 350.0 69.0 SEP 83 JUN 84

6.079 24 BI-CAST HIGH PRESSURE TURBINE NOZZLE
DESIGN ANALYSIS ON SCHEDULE TO DETERMINE THE BEST CANDIDATE DESIGN. PRELIMINARY CONFIGURATION WAS MODIFIED TO ENHANCE PRODUCEABILITY BASED ON MUCK UP CASTING TRIALS.

510.0 416.0 63.0 OCT 83 MAY 84

6.079 25 AUT-1200 ENGINE
SEE SUBTASKS.

1,534.0 1,442.0 32.0 OCT 85 OCT 85

6.079 26 MUDCRYSTAL ALLOY FOR HIGH PRESSURE TURBINE BLADES
MUDCRYSTAL APPLICATION ANALYSIS HAS BEEN INITIATED FOR COOLING AIR TRADE OFF, PROPERTY VERIFICATION AND STRESS ANALYSIS.

221.0 208.0 9.0 OCT 85 OCT 85

6.079 27 RAPIDLY SOLIDIFIED RATE (RSR) NICKEL-BASE SUPERALLOY
UNDER COMPONENTS QUALIFICATION, COMPONENT INSPECTION AND EVALUATION HAS BEEN STARTED.

363.0 340.0 1.0 JUN 85 JUN 85

6.079 28 BI-CAST HIGH PRESSURE TURBINE NOZZLE
TOLLING AND GAGING IS BEING FABRICATED EXPECTED DELIVERY OF TOLLING IS APRIL 1984.

490.0 475.0 1.0 SEP 85 SEP 85

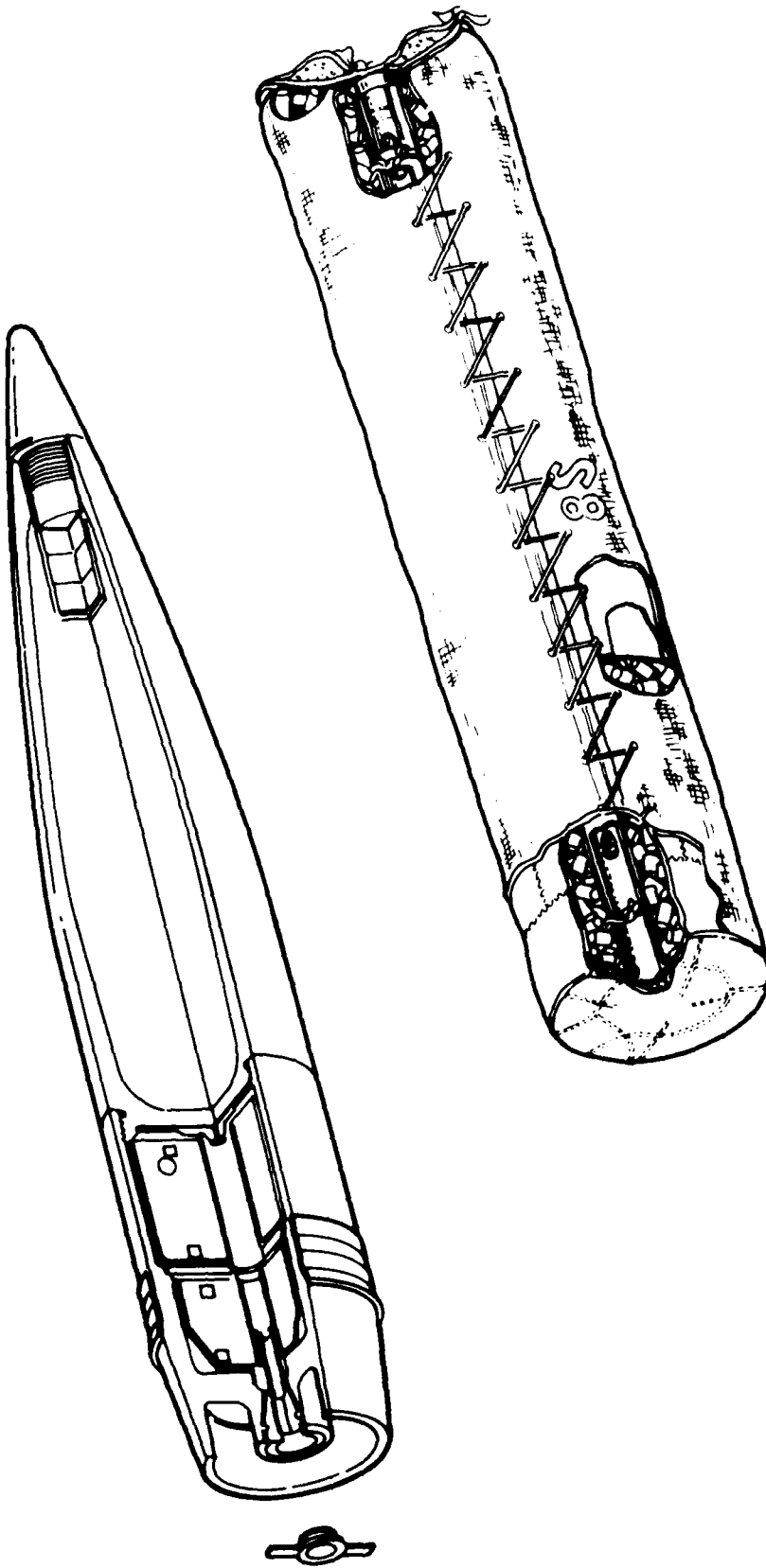
6.079 29 AUTOMATED LASER DRILLING OF COMBUSTOR COMPONENTS
***** DELINQUENT STATUS REPORT *****

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
SUMMARY PROJECT STATUS REPORT
2ND SEMIANNUAL SUBMISSION CY 83 RCS DRGMT-301

| PROJECT NO. | TITLE + STATUS | AUTHOR- RIZED | CONTRACT VALUES | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|-------------|--|------------------|--------------------|---|---|--|
| | | | | | | |
| 100-2070-00 | AUTOMATIC DEBURRING OF ENGINE COMPONENTS REVIEW OF THE STATE-OF-THE-ART OF AUTOMATIC DEBURRING UNITS HAS BEEN COMPLETED. A ROBUSTIC DEBURRING APPROACH HAS BEEN SELECTED. AUXILIARY CYCLING IS CURRENTLY SELECTING THE ROUSTIC UNIT. REQUIREMENTS ARE TO DEBURR AS MANY COMPONENTS AS PRACTICABLE. | 442.0 | 419.0 | 8.0 | SEP 83 | MAY 84 |
| 100-2070-01 | ADAMS TANK PLANT - TECH MOD PROGRAM PHASE 1 OF THE COA/PIP IS ON SCHEDULE. A GOVERNMENT ADVISORY GROUP HAS BEEN FORMED TO ASSIST THE TACOM PROGRAM MANAGER. | 100.0 | | 100.0 | SEP 83 | SEP 84 |
| 100-2070-02 | ARMY DEPT PRODUCTIVITY IMPROVEMENT PROGRAM THE MAJORITY OF THE PREPARATORY WORK FOR THE DEPT PROGRAM HAS BEEN COMPLETED. THE PROJECT IS NOW AWAITING FURTHER FUNDING ESTABLISHING PHASE 1 TO BEGIN. | 100.0 | | 11.0 | MAY 83 | JUN 84 |
| 100-2070-03 | ADAMS TRANSMISSION PRODUCTIVITY IMPROVEMENTS (PHASE 1) TASK 3 AWARDED 29 SEP 83. | 300.0 | 132.0 | | | SEP 84 |
| 100-2070-04 | ACTIVATING AND ADAPTIVE CONTROL ***** DELINQUENT STATUS REPORT ***** | | | | | SEP 84 |
| 100-2070-05 | GEOMETRIC PARTS ***** DELINQUENT STATUS REPORT ***** | | | | | JUN 84 |
| 100-2070-06 | SURFACE TREATMENT AND CAST HARDENING OF STEEL COMPONENTS CONTRACT WAS AWARDED 29 SEP 83. EFFORT TO DATE HAS BEEN CAD GEOMETRIC MODELLING OF GEAR DESIGN FOR CALCULATE GEARS. COILS, TOOLING AND TEST GEARS ARE BEING PROCURED. | 150.0 | 102.0 | | SEP 84 | SEP 84 |
| 100-2070-07 | PRODUCTION OF SPECIAL ARMOR STEEL STEEL PLATE FROM 3/16 TO 2 IN HAS BEEN SUCCESSFULLY ROLLED TO THE DESIGNED FEATURE SOME PROBLEMS WITH FLATNESS STILL EXIST TO BE RESOLVED. | 900.0 | 528.0 | 369.0 | MAY 84 | SEP 84 |
| 100-2070-08 | MANUFACTURING METHODS FOR SPECIALIZED ARMOR MATERIALS APPLY ALUMINUM, AND PBM HAVE PROGRESSED IN THE AREAS OF MATERIALS, PROCESSES AND FACILITIES TOWARD REALIZING THE PROGRAM OBJECTIVE. | 6,550.0 | | 5,770.0 | SEP 84 | SEP 84 |
| 100-2070-09 | IMPROVED MST TRACK SEE SUBTASKS FOR WORK STATUS. | 735.0 | 637.0 | 97.0 | SEP 84 | SEP 84 |
| 100-2070-10 | CAMP MFG FROM HI STK/LTWEIGHT FERRUSS, NON-FERR + MTL MATRIX TWO CONTRACTS WERE AWARDED. ONE HAS COMPLETED THE DIN DESIGN, WHICH CONSISTS OF UNAL20 TUBES WITH A STEEL JACKET. THE OTHER HAS COMPLETED THE CASTING DESIGN FOR THE PINS, AND IS MODIFYING THE CUM FOR LEAVING THE SILICON CARBIDE FIBERS. | 304.0 | 273.0 | | SEP 84 | SEP 84 |

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
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| PROJ NO. | TITLE + STATUS | AUTHO- RIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|--------------|---|----------------------------|-------------------------------|---|---|--|
| | | | | | | |
| 4 03 0107 02 | ADAPTIVE FLUIDIC DAMPER THE MANUFACTURING PROCESS, ALTERNATE MATERIALS AND AN ECONOMIC ANALYSIS HAVE BEEN COMPLETED. THE CONTRACTOR'S REPORT IS DUE AT THE END OF MARCH. NO FUNDS HAVE BEEN ALLOCATED FOR PHASE II. | 90.0 | 57.0 | 29.0 | MAR 84 | MAR 84 |
| 4 03 0107 03 | ORGANIC COMPOSITE ROAD WHEEL A COMPOSITE ROADWHEEL WAS DESIGNED USING GLASS AND GRAPHITE FIBERS IN AN EPOXY MATRIX. THE CURRENT ALUMINUM ROADWHEEL DESIGN IS BEING COMPARED TO THE COMPOSITE WHEEL TO DETERMINE ADEQUACY. | 343.0 | 309.0 | 29.0 | AUG 84 | AUG 84 |
| 4 03 0121 | CAD/CAM FOR THE BRADLEY FIGHTING VEHICLE PROGRAM BUDGETS AND SCHEDULES COMPLETED. PROCUREMENT OF A ROBOTIC SYSTEM HAS BEEN INITIATED. AT-ARC HARDWARE + SOFTWARE COMPATIBILITY HAS BEEN COMPLETED. VISION SUBSYSTEM PROCUREMENT HAS BEEN INITIATED. | 750.0 | 724.0 | 7.0 | | JEC 84 |



ARMAMENT, MUNITIONS AND CHEMICAL COMMAND
(AMCCOM)
(AMMUNITION)

A R C U L M (AMMORTIZATION)

CURRENT FUNDING STATUS, 2ND CYES

| FISCAL YEAR | NO. OF PROJECTS | AUTHORIZED FUNDS (\$) | CONTRACT ALLLOCATED (\$) | CONTRACT FUNDING EXPENDED (\$) | % | IN HOUSE REMAINING (\$) | FUNDING EXPENDED (\$) | % |
|----------------|--------------------|-------------------------------|----------------------------------|--|--------|---------------------------------|-------------------------------|--------|
| 77 | 1 | 1,452,900 | 1,184,100 | 1,158,000 | (97%) | 268,800 | 268,800 | (100%) |
| 78 | 1 | 0 | 0 | 0 | (0%) | 0 | 0 | (0%) |
| 79 | 7 | 8,274,500 | 3,574,200 | 3,111,800 | (87%) | 2,703,300 | 1,840,100 | (68%) |
| 80 | 11 | 4,854,000 | 2,063,000 | 2,596,200 | (90%) | 1,991,000 | 1,062,700 | (53%) |
| 81 | 24 | 14,458,900 | 8,123,500 | 6,990,900 | (85%) | 6,275,400 | 2,912,400 | (46%) |
| 82 | 40 | 27,237,000 | 17,093,200 | 12,050,800 | (70%) | 10,143,800 | 5,162,200 | (50%) |
| 83 | 27 | 11,235,700 | 6,626,800 | 980,400 | (14%) | 4,608,900 | 1,783,000 | (38%) |
| TOTAL | 111 | 65,513,000 | 39,524,800 | 26,888,000 | (68%) | 25,988,200 | 14,033,400 | (53%) |

AUTHORIZED FUNDING CONTRACT ALLLOCATED 60%

INHOUSE REMAINING 39%

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
SUMMARY PROJECT STATUS REPORT
2ND SEMIANNUAL SUBMISSION CY 83 RLS JKMT-301

PROJ NO. TITLE + STATUS

| PROJ NO. | TITLE + STATUS | AUTHOR- RILEY | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|-----------|---|------------------|-------------------------------|---|---|--|
| 2 83 0700 | AUTOMATED MULTIPLE FILTER LIFE TESTER SEVERAL COMPONENT PARTS IN THE TESTER WERE REPLACED TO REDUCE COSTS, INCREASE ACCURACY, ELIMINATE CONDENSATION, AND REDUCE THE SYSTEM SIZE. | 367.0 | 311.0 | 23.0 | SEP 84 | JUL 84 |
| 2 83 0704 | CHEMICAL REMOTE SENSING SYSTEMS NO FUDOS WERE EXPENDED OR WORK ACCOMPLISHED DURING THIS PERIOD. | 300.0 | 180.0 | 95.0 | DEC 82 | JUN 84 |
| 2 83 0709 | MANUFACTURE OF IMPREGNATED CHARCOAL-METHYLENE DIOL PROCESSES WERE SELECTED FOR INVESTIGATION. SAMPLES WERE PREPARED REPRESENTING DIFFERENT PROCESS CONDITIONS AND CYANIDE EXPOSURE TESTS PERFORMED. WORK WAS COMPLETED ON PROCUREMENT PACKAGE FOR FABRICATION OF A PILOT PLANT. | 256.0 | 103.0 | 112.0 | DEC 84 | NOV 85 |
| 2 83 0710 | AUTOMATED AGENT PERMEATION TESTER THE FUTURE WORK WAS DEMONSTRATED IN SEPTEMBER 1983. VERIFICATION TESTING WAS COMPLETED WITH EMPHASIS ON SOFTWARE. SAFETY MANAGEMENT REPORT AND OPERATING INSTRUCTIONS WERE REVIEWED AND ACCEPTED. | 224.0 | 150.0 | 57.0 | JUN 83 | JUN 84 |
| 2 83 0711 | THIS CONTAINS OF DESIGN AGENT CONTAINERS CONTRACT FOR PHASE I REPORT AWARDED IN SEP 83. MUST PALMISING CALCULATED FOR COMPATIBILITY TESTING WERE SELECTED. | 255.0 | 201.2 | 55.0 | FEB 83 | JUN 84 |
| 2 83 0712 | WITH COATING OF DESIGN AGENT CONTAINERS VARIOUS APPLICATION TECHNIQUES WERE EVALUATED. QUALITY CONTROL RESULTS WERE DEVELOPED. | 90.0 | | 29.2 | APR 84 | NOV 84 |
| 2 83 0713 | MANUFACTURING PROCESS FOR GAS MASK CARTRIDGES TECHNICAL EVALUATION OF PROPOSALS WAS COMPLETED AND PROVIDED TO MANAGEMENT. | 283.0 | | 19.0 | SEP 85 | SEP 85 |
| 2 83 0714 | PROTECTIVE MASK LEAKAGE TESTING A TECHNICAL REPORT WAS PREPARED BY THE CONTRACTOR AND IS BEING EVALUATED. | 199.0 | 150.9 | 19.0 | JUN 84 | NOV 84 |
| 2 83 0715 | PILOT LINE FOR FULL SCALE POWER SUPPLIES PHASE II TEST EQUIPMENT DESIGN AND CONSTRUCTION IS COMPLETE. PHASE III DESIGN AND FABRICATION OF CUT-MAGNET ASSEMBLY MACHINE IS COMPLETE. THE AUTOMATIC TESTER AND ASSEMBLY MACHINE HAVE BEEN SUCCESSFULLY DEMONSTRATED AND ACCEPTED. | 591.0 | 422.0 | 100.0 | APR 84 | APR 84 |
| 2 83 0716 | MANUFACTURING PROCESS ENGINEERING STATUS REPORT 30000 | | | | | JUN 84 |

AD-A142 723

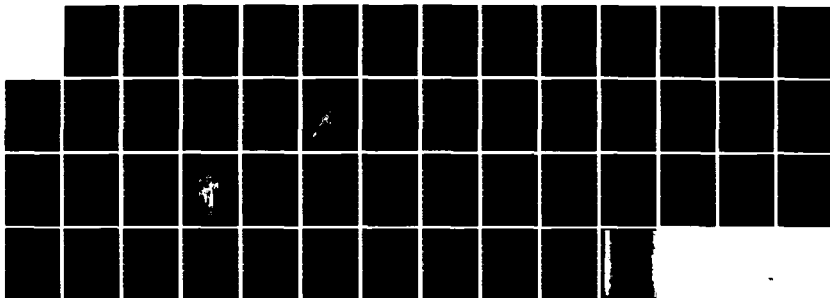
MANUFACTURING METHODS AND TECHNOLOGY PROJECT EXECUTION
REPORT(U) ARMY INDUSTRIAL BASE ENGINEERING ACTIVITY
ROCK ISLAND IL C FULLER MAY 84 SBI-AD-E700 008

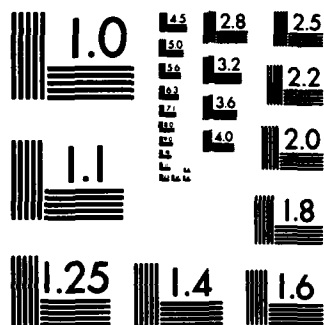
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
SUMMARY PROJECT STATUS REPORT
2ND SEMIANNUAL SUBMISSION CY 83 RCS DRCMT-301

| PROJ NO. | TITLE + STATUS | AUTHORIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|-----------|--|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| 5 83 1295 | MODERNIZATION OF CHARCOAL FILTER TEST EQUIPMENT THE SPENT FILTER PACKAGING SYSTEM WAS REEXAMINED FOR POSSIBLE SIMPLIFICATION AND INCREASED RELIABILITY. DETAILED ENGINEERING WAS COMPLETED ON VARIOUS PARTS OF THE CONTAINMENT CHAMBER. | 219.0 | 148.0 | 23.0 | JUL 84 | JUL 84 |
| 5 79 1318 | CHEMICAL PRODUCTION FILL, CLOSE AND LAP FOR 8 IN XM736 PROJ ***** DELINQUENT STATUS REPORT ***** | | | | MAR 81 | JUN 84 |
| 5 80 1318 | PRODUCTION, FILL, CLOSE AND LAP 8 IN XM736 AND BLU 80 BUMB ***** DELINQUENT STATUS REPORT ***** | | | | JUN 81 | JUN 84 |
| 5 81 1318 | PRODUCTION, FILL, CLOSE AND LAP 8 IN XM736 AND BLU 80 BUMB ***** DELINQUENT STATUS REPORT ***** | | | | JUL 82 | JUN 84 |
| 5 80 1340 | SUPER TROPICAL BLEACH THIS PROJECT HAS BEEN COMPLETED. | 202.0 | 170.7 | 31.3 | MAR 81 | MAR 84 |
| 5 81 1340 | SUPER TROPICAL BLEACH PLANT DESIGN, FABRICATION AND SETUP HAS BEEN COMPLETED. PILOT PLANT DRYER EVALUATION CONTINUED. | 822.0 | 629.1 | 173.5 | APR 84 | APR 84 |
| 5 83 1340 | SUPER TROPICAL BLEACH ENVIRONMENTAL CONSTRAINTS ARE BEING DEFINED. ENVIRONMENTAL CONTROL EQUIPMENT HAS BEEN PROCURED. | 340.0 | 194.8 | 68.1 | APR 84 | APR 84 |
| 5 80 1354 | SLUDGE VOLUME REDUCTION AND DISPOSAL PROCESS STUDY CONTRACT INSTALLATION OF PILOT EQUIPMENT AT THE CENTRAL WASTE TREATMENT PLANT (CWT) WAS INITIATED. IT IS NOW 15 PCT COMPLETE. FUNDING FOR THESE PILOT FACILITIES IS SPLIT AMONG THREE MMT PROJECTS AT PBA DEALING WITH POLLUTION ABATEMENT. | 156.0 | 4.0 | 116.1 | DEC 80 | SEP 84 |
| 5 81 1354 | SLUDGE VOLUME REDUCTION AND DISPOSAL PROCESS CONTRACT LET FOR INSTALLATION OF PILOT Dewatering EQUIPMENT. SEVERE WINTER WEATHER DELAYED CIVIL WORK ON EQUIPMENT SUPPORT PADS AND UNDERGROUND PIPING. ENVIR CONSIDERATIONS NOW REQUIRE THAT SLUDGE BE PUT IN HAZARD WASTE LANDFILL INSTEAD OF CHEMICAL. | 110.0 | 44.3 | 7.9 | SEP 83 | SEP 84 |
| 5 81 1500 | EVAL INDUST CAPABILITY F/LOAD COMMERCIAL EXPL-HIGH USE MUNIT ***** DELINQUENT STATUS REPORT ***** | | | | SEP 82 | JUN 84 |
| 5 82 1500 | EVAL INDUST CAPABILITY F/LOAD COMMERCIAL EXPL-HIGH USE MUNIT ***** DELINQUENT STATUS REPORT ***** | | | | OCT 83 | JUN 84 |
| 5 82 1600 | THREE PIECE SHAFT FOR THE 300-65/B TAILCONE ***** DELINQUENT STATUS REPORT ***** | | | | | JUN 84 |

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
S U B M A R Y P R O J E C T S T A T U S R E P O R T
2ND SEMIANNUAL SUBMISSION CY 83 RCS DRMT-301

| PROJ NO. | TITLE + STATUS | AUTHORIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|-----------|--|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| 5 03 0900 | AUTOMATED MULTIPLE FILTER LIFE TESTER SEVERAL COMPONENT PARTS IN THE TESTER WERE REPLACED TO REDUCE COSTS, INCREASE ACCURACY, ELIMINATE CONDENSATION, AND REDUCE THE SYSTEM SIZE. | 367.0 | 311.0 | 23.0 | SEP 84 | UCT 84 |
| 5 02 0904 | CHEMICAL REMOTE SENSING SYSTEMS NO FUNDS WERE EXPENDED OR WORK ACCOMPLISHED DURING THIS PERIOD. | 300.0 | 180.0 | 95.0 | DEC 82 | JUN 84 |
| 5 02 0905 | MANUFACTURE OF IMPREGNATED CHARCOAL-WHETLERITE TWO PROUESSES WERE SELECTED FOR INVESTIGATION. SAMPLES WERE PREPARED REPRESENTING DIFFERENT PROCESS CONDITIONS AND CYANOGEN CHLORIDE TESTS PERFORMED. WORK WAS COMPLETED ON PROCUREMENT PACKAGE FOR FABRICATION OF A PILOT PLANT. | 256.0 | 103.0 | 112.0 | DEC 84 | NOV 85 |
| 5 02 0909 | AUTOMATED AGENT PERMEATION TESTER THE PROTOTYPE WAS DEMONSTRATED IN SEPTEMBER 1983. VERIFICATION TESTING WAS COMPLETED WITH EMPHASIS ON SOFTWARE. SAFETY ASSESSMENT REPORT AND OPERATING INSTRUCTIONS WERE REVIEWED AND ACCEPTED. | 224.0 | 150.0 | 57.0 | JUN 83 | JUN 84 |
| 5 02 0913 | SPIN COATING OF DECON AGENT CONTAINERS CONTRACT FOR PHASE I EFFORT AWARDED IN SEP 83. MOST PROMISING CANDIDATES FOR COMPATIBILITY TESTING WERE SELECTED. | 255.0 | 201.2 | 55.0 | FEB 83 | JUN 84 |
| 5 03 0915 | SPIN COATING OF DECON AGENT CONTAINERS VARIIOUS APPLICATION TECHNIQUES WERE EVALUATED. QUALITY CONTROL REQUIREMENTS WERE DEVELOPED. | 90.0 | | 29.2 | APR 84 | NOV 84 |
| 5 03 0924 | MANUFACTURING PROCESS FOR GAS MASK CANISTERS TECHNICAL EVALUATION OF PROPOSALS WAS COMPLETED AND PROVIDED TO PROCUREMENT. | 283.0 | | 19.0 | SEP 85 | SEP 85 |
| 5 03 0925 | PROTECTIVE MASK LEAKAGE TESTING A TECHNICAL REPORT WAS PREPARED BY THE CONTRACTOR AND IS BEING EVALUATED. | 199.0 | 150.9 | 19.0 | JUN 84 | NOV 84 |
| 5 01 1001 | PILOT LINE FOR FUZE FLUIDIC POWER SUPPLIES PHASE II TEST EQUIPMENT DESIGN AND CONSTRUCTION IS COMPLETE. PHASE III DESIGN AND FABRICATION OF CLIL-MAGNET ASSEMBLY MACHINE IS COMPLETE. THE AUTOMATIC TESTER AND ASSEMBLY MACHINE HAVE BEEN SUCCESSFULLY DEMONSTRATED AND ACCEPTED. | 591.0 | 422.0 | 100.0 | APR 84 | APR 84 |
| 5 02 1019 | MHT PENTAJURANE PROCESS ENGINEERING ***** OLLINQUENT STATUS REPORT ***** | | | | | JUN 84 |

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
SUMMARY PROJECT STATUS REPORT
2ND SEMIANNUAL SUBMISSION CY 83 RCS DRCHT-301

| PROJ NO. | TITLE + STATUS | AUTHO- RIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|-----------|---|----------------------------|-------------------------------|---|---|--|
| | | | | | | |
| > 82 1701 | BULK TRANSFER OF CHEMICAL MATERIALS COORDINATED WITH A/E FIRM ON SCENARIO FOR CONSOLIDATED SMOKE COMPLEX. ANALYZED CURRENT AND PROPOSED HANDLING PROCEDURES. | 221.0 | 91.2 | 126.3 | SEP 85 | JUN 84 |
| > 83 1701 | BULK TRANSFER OF CHEMICAL MATERIALS PERFORMED MATERIAL HANDLING EQUIPMENT SURVEY. SAFETY STUDY AND FIRE SUPPRESSION METHODS COORDINATED WITH A/E FIRM. | 207.0 | 91.2 | 36.7 | SEP 85 | SEP 85 |
| > 82 1709 | IMPROVED PROCESSING OF PYROTECHNIC MIXTURES VENDOR SHIPPED JAYGU MIXER FOR INSTALLATION AT PBA. COMPLETED DESIGN FOR INSTALLATION OF MIXER AND FIRE PROTECTION SYSTEM. | 500.0 | 72.2 | 274.8 | JUL 84 | JUL 84 |
| > 83 1709 | IMPROVED PROCESSING OF PYROTECHNIC MIXTURES ISSUED FUNDS TO CAA, LSAAP, AND LHAAP FOR PYRU MIX SAMPLES AND RAW MATERIALS. RECEIVED RAW MATERIALS, WATER CHILLER AND OTHER EQUIPMENT. | 446.0 | 103.4 | 148.6 | JUL 84 | JUL 84 |
| > 82 1711 | RED PHOSPHORUS POLLUTION ABATEMENT EVALUATIONS PROCESS AND CRITERIA SURVEYS HAVE BEEN CONDUCTED. SMALL SCALE TESTS INDICATE KP VERY TOXIC TO AQUATIC LIFE. A SPECIAL WASTE COLLECTION AND TREATMENT SYSTEM REQUIRED PRIOR TO SENDING TO CWTF. INSTALLATION SPECS AND DRAWINGS PREPARED. PKG ADVERTISED. | 125.0 | 75.3 | 41.9 | OCT 83 | OCT 84 |
| > 81 1907 | AUTOMATED GAGING FOR MEDIUM CAL. PROJECTILE BODIES (ICAM) SPECIFICATIONS FOR PROCUREMENT OF ULTRASONIC GAGING SYSTEM HAS BEEN WRITTEN. AGREEMENT HAS BEEN REACHED ON INTERPRETATION OF THE 5 INCH/54 CALIBER PROJECTILE DRAWINGS AND METHODS. | 544.0 | 136.0 | 294.0 | SEP 83 | DEC 84 |
| > 81 3961 | IMPRVU VIBR ACCEPTANCE TESTING F/M32, XM587/724 FUZES ? S7A APPROXIMATELY 90 PCT OF THE SYSTEM HAS BEEN FABRICATED AT VARIOUS SUBCONTRACTORS SITES. FACILITY MODIFICATIONS HAVE BEEN MADE TO ACCOMMODATE THE SYSTEM. INSTALLATION IS PLANNED FOR MAY 1984. | 650.0 | 645.0 | 5.0 | DEC 83 | JUN 84 |
| > 79 4000 | AUTOMATED M55 DETONATOR PRODUCTION EQUIPMENT CONTRACTUAL EFFORT WITH MRC ON THE INSPECTION MODULE IS BEING TERMINATED DUE TO UNRELIABLE TESTING. REMAINING FUNDS WILL BE USED FOR IN-HOUSE FAILURE ANALYSIS AND FINAL REPORTS. | 1,750.0 | 868.4 | 881.6 | MAR 81 | MAR 84 |
| > 81 4000 | AUTOMATED M55 DETONATOR PRODUCTION EQUIPMENT TECHNICAL IS BEING TERMINATED DUE TO LACK OF EQUIPMENT FROM FY79 EFFORT. REPROGRAMMING OF 50K FROM IUMA AAP TO ARDC IS PLANNED. | 403.5 | 67.5 | 324.0 | SEP 81 | MAR 84 |
| > 79 4024 | DON DEV BLU PROT CLMP AND AUTO ASSY MACH M223 FUZE THE CONTRACTOR SUBMITTED FOR REVIEW THE MANUFACTURED AND ASSEMBLED PORTIONS OF THE MACHINE FOR THE SLIDER AND SAFETY PIN FEEDERS, THE SLIDER, SAFETY PIN AND M55 MERGING DIALS, AND THE UPPER AND LOWER TUNTABLES AND QUILLS FOR THE 20 SS ASSY MACHINE. | 1,935.0 | 1,506.1 | 316.0 | SEP 81 | OCT 84 |

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| PRJ NO. | TITLE + STATUS | AUTHO- RIZED | CONTRACT VALUES | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|------------|--|-----------------|--------------------|---|---|--|
| | | (\$000) | (\$000) | (\$000) | | |
| 03 4061 | NITROGUANIDINE PROCESS OPTIMIZATION PRELIMINARY DESIGN CRITERIA WERE WRITTEN FOR THE TREATMENT OF NO PROCESS WASTE WATERS BASED ON LABORATORY TESTS. PILOT SCALE EQUIPMENT WAS INSTALLED AND TREATMENT OF PLANT WASTE WATER BEGUN. | 640.0 | 350.0 | 92.0 | SEP 84 | SEP 84 |
| 02 4062 | AUTO MANUFACTURE SYSTEM FOR MORTAR INCREMENT CONTAINERS ACCEPTANCE TESTING/SURRY VACUUM FORMING BASED MFG F181 MM M205 INCREMENT CONTAINER HALVES + TOOLING FAB + PART MFG COMPLETED. ALL TESTING OF ASSY/INSP SYS RESCHEDULED F/2084. PAPER MULD BASED MFG SYS FAB COMPLETED + ASSY + DEBUG UNDERWAY. | 4,149.9 | 3,697.3 | 386.0 | SEP 84 | SEP 84 |
| 02 4062 01 | SLURRY VACUUM FORMING MFG SYS CONTRACT MODIFIED TO COMPLETE INSTALLATION OF THE WATER + HALON FIRE PROTECTION SYS AT ARMETEC. MANUF SYS AT ARMETEC REFURBISHED AND SYS OPERATED OVER A 3 DAY PERIOD TO EVALUATE DIE MAINTENANCE PROCEDURES AND INTERVALS. | | | | SEP 83 | JUN 84 |
| 02 4062 02 | PAPER MULDING MANUFACTURING SYSTEM THE MAIN FRAME IS COMPLETE AND THE NC PAPER FEED AND BLANKING SUBSYSTEM IS OPERATIONAL. STATIONS ARE MOUNTED AND ARE BEING DEBUGGED. OIL HEATING HARDWARE AND DUST COLLECTION SYS ON HAND AND READY TO BE INSTALLED. | | | | JUL 84 | JUN 84 |
| 02 4062 03 | ASSEMBLY SYSTEM THE IMAGING/CAMERA SYSTEMS WERE TROUBLE-SHOOTED AND DEFECTIVE KUM AND CPU CARDS RETURNED TO MANUFACTURER. HARDWARE REQUIRING MOD WAS REMOVED AND SHIPPED TO INNOVA. THESE MODS WERE COMPLETED AND RETURNED FOR RE-INSTALLATION. | | | | SEP 83 | JUN 84 |
| 02 4062 06 | PROTOTYPE PRODUCTION TOOLING 2000 M205 PARTS WERE MANUFACTURED AND DELIVERED FOR BALLISTIC TESTING + EVALUATION. M204 PROTOTYPE TOOLING WAS COMPLETED AND 4000 PARTS WERE DELIVERED FOR BALLISTIC + EVALUATION. ALL TESTING EXCEPT CULF FIRINGS WAS COMPLETED. | | | | | JUN 84 |
| 03 4062 | AUTO MANUFACTURE SYSTEM FOR MORTAR INCREMENT CONTAINERS CONTRACT ADMIN CONTINUED ADDRESSING THE PROCESSING OF CONTRACT MODS. WITNESSING OF EQUIP TESTING, AND CONTRACT REVIEW MEETINGS. MAJOR ONGOING EFFORT IS REVIEWING + FINALIZATION OF TECH DATA PACKAGES + TEST RESULTS. | 250.0 | | 226.5 | JUN 84 | SEP 84 |
| 02 4145 | CONTROL DRYING AUTO SB + BALL PROPELLANT MANUFACTURING SEE INDIVIDUAL TASKS (1 AND 2). | 479.2 | 260.1 | 145.1 | SEP 83 | JUL 84 |
| 02 4145 01 | CONTROL DRYING AUTO SB PROP MFG A PROCESS GAS CHROMATOGRAPH (PGC) WAS INSTALLED AND OPERATED TO MEASURE THE SOLVENT CONTENT OF CONDENSATE FROM THE CASBL SOLVENT RECOVERY AND WATER DRY OPERATIONS. SEVEN UNIT PROVEDOUT RUNS WERE MONITORED WITH THE PGC. | 335.6 | 218.7 | 80.0 | SEP 83 | JUL 84 |

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PAWJ NL. TITLE + STATUS

| PAWJ NL. | TITLE + STATUS | AUTHORIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|--------------|--|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| 5 82 4145 02 | CONTROL DRYING AUTO BALL PROP MFG PLANT TESTS HAVE BEEN COMPLETED. THE RESULTS SHOWED THAT THE M+V CONTENT OF BALL POWDER PROPELLANT CAN BE CONTROLLED BY THE TEMPERATURE OF THE PROPELLANT BED. | 143.4 | 41.4 | 65.1 | SEP 83 | MAR 84 |
| 5 80 4150 | NEW MANUFACTURING PROCESSES FOR SAMS AMMUNITION THE DUPLEX TOWLED BULLET ASSEMBLY MACHINE FINAL ACCEPTANCE TEST WAS CONDUCTED. ACCEPTANCE DATA COLLECTION IS SCHEDULED FOR FEB 84. | 489.0 | 332.7 | 156.3 | JUN 82 | FEB 84 |
| 5 81 4150 | NEW MANUFACTURING PROCESSES FOR SMALL CALIBER PENETRATORS THE SKEWED AXIS ROLL FORMING PROTOTYPE EQUIPMENT FOR MANUFACTURE OF THE STEEL PENETRATOR IS SCHEDULED FOR COMPLETION BY 30 MAR 84. INSTALLATION, PROCUREMENT OF TOOLS AND MATERIALS IS PROCEEDING ON SCHEDULE. | 211.0 | 64.2 | 141.9 | JUL 82 | APR 84 |
| 5 82 4161 | PRODUCTION TECHNIQUES FOR IMPROVED SMOKE MUNITION (81 MM) A SUFFICIENT AMOUNT OF THE PROCESS BASELINE WAS COMPLETED TO MEET THE FACILITIES CRITICAL DATE. EQUIPMENT TOPS WERE COMPLETED AND SUBMITTED TO MPBMA DURING DEC 83. | 476.0 | 97.5 | 260.0 | JUL 83 | UCT 84 |
| 5 82 4200 | TNT CRYSTALLIZER FOR LARGE CALIBER MUNITIONS A DETAIL DRAWING PACKAGE FOR FINAL EQUIPMENT AND REMOTE CONTROL SYSTEM DESIGNS HAVE BEEN PREPARED AND SUBMITTED TO ARDC FOR APPROVAL. | 364.8 | 188.4 | 160.0 | DEC 84 | MAR 84 |
| 5 80 4210 | DRY CUTTING OF ENERGETIC MATERIALS APPROX. 40 LBS OF BENITE WAS SUCCESSFULLY CUT ON THE PROTOTYPE EQUIPMENT. M83 PRIMERS WERE LOADED WITH JET CUT AND SAW CUT BENITE AND STATICALLY TESTED. FINAL TECHNICAL REPORT IS UNDER PREPARATION AT RADFORD WAP. | 622.2 | 453.7 | 158.0 | MAY 82 | MAR 84 |
| 5 81 4226 | ON-LINE MONITORS FOR WATER POLLUTANTS TESTING OF THE FIELD MONITORS AT THE TNT PRODUCTION SITE HAS BEEN SUCCESSFULLY CONCLUDED, WITH TNT MONITORED TO 20 PPB. ONE POLYAROGRAPHIC MONITOR WAS REJECTED. TESTING IS CONTINUING AT THE NG SITE. | 432.0 | 318.6 | 107.0 | SEP 82 | MAR 85 |
| 5 81 4231 | IN-PLANT REUSE OF POLLUTION ABATED WATERS EQUIPMENT REQUIRED FOR THE PILOT-SCALE EVALUATION OF TREATMENT TECHNOLOGIES AT WAP HAS BEEN PROCURED AND INSTALLED. PILOT EVALUATIONS HAVE BEEN DELAYED UNTIL 3QFY84. | 460.5 | 265.6 | 194.9 | JUN 83 | SEP 84 |
| 5 82 4231 | IN-PLANT REUSE OF POLLUTION ABATED WATERS WORK TO EVALUATE THE USE OF CONTINUOUS CONDUCTIVITY AND PH INSTRUMENTATION AT PBA TO CONTROL BOTH THE TREATMENT CHEMICAL UTILIZATION AND FLOW RATE THROUGH THE CMF HAS BEEN INITIATED. | 313.0 | | 180.1 | JULY 84 | SEP 84 |

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|---------------|--|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| > 01 4266 | MANUF. INSPECT + TEST EQUIP FOR MAGNETIC PUMPER SUPPLY ALL WORK INVOLVED IN THE DESIGN AND FABRICATION OF ALL TOOLING AND EQUIPMENT NEEDED FOR THE MANUFACTURE OF MAGNETIC PUMPER SUPPLY TO SUPPORT THE PRODUCTION OF M509A2E1 FUZE IS COMPLETE. THE FINAL REPORT IS SCHEDULED FOR COMPLETION 31 MARCH 1984. | 782.0 | 483.0 | 299.0 | SEP 83 | SEP 84 |
| > 01 4267 | CONTINUOUS PROCESS FOR GRANULAR COMP B ***** DELINQUENT STATUS REPORT ***** | | | | SEP 82 | JUN 84 |
| > 02 4267 | CONTINUOUS PROCESS FOR GRANULAR COMP B NO SIGNIFICANT WORK ACCOMPLISHED PENDING RESTRUCTURE OF EFFORT. | 80.0 | | 68.0 | MAR 84 | APR 84 |
| > 02 4273 | AUTOMATED PRODUCTION OF STICK PROPELLANT A PILOT LINE ARRANGMENT USING A 4-IN PRESS HAS BEEN USED TO SELECT A DC SERVOMOTOR CUTTER, JET STREAM CONVEYOR, AND DUAL OPTIC LENGTH SENSOR FOR PROTOTYPE USE. WORK IS CONTINUING ON HANDLING/TRAYER DESIGN. | 821.2 | 689.2 | 130.0 | DEC 83 | DEC 84 |
| > 01 4281 | CONSERVATION OF ENERGY AT ARMY AMMUNITION PLANTS SEE THE FOLLOWING INDIVIDUAL TASKS FOR WORK STATUS. | 1,281.4 | 632.7 | 600.9 | SEP 84 | SEP 85 |
| > 01 4281 A04 | ENERGY RECOVERY FROM WASTE HEAT THE CONTRACT SUM WAS AMENDED. ENGINEERING ANALYSIS HAS BEEN INITIATED TO ESTABLISH ESSENTIAL ENGINEERING DESIGN INFORMATION AND ANTICIPATED STEAM SAVINGS. EQUIPMENT PROCUREMENT HAS BEEN INITIATED. | 361.7 | 194.1 | 166.2 | | SEP 84 |
| > 01 4281 A06 | UNCOOLED PRODUCER GAS FOR KETENE MANUFACTURE HULSTON AAP HAS CONDUCTED A BENCH SCALE INVESTIGATION TO DETERMINE THE FEASIBILITY OF USING HOT, CRUDE PRODUCER GAS AS A FUEL FOR KETENE FURNACE OPERATIONS. THE TECHNICAL REPORT IS IN EDITORIAL REVIEW AND WILL BE DISTRIBUTED SOON. | 129.6 | 76.6 | 50.8 | MAR 84 | DEC 84 |
| > 01 4281 A08 | CAVITATIONAL REMOVAL OF EXPLOSIVES THE DESIGN, INSTALLATION, AND TESTING OF THE PROTOTYPE SYSTEM THAT INCLUDES WATER RECIRCULATION AND EXPLOSIVE RECOVERY HAS BEEN COMPLETED. THE REPORT RECEIVED FROM THE CONTRACTOR IS BEING PREPARED FOR PUBLICATION. | 375.8 | 269.6 | 56.0 | JUN 83 | SEP 84 |
| > 01 4281 A10 | USE OF BIOMASS AS ENERGY SOURCES AT ARMY AMMUNITION PLANTS THE FINAL TECHNICAL RPT 'FEASIBILITY STUDY OF USING BIOMASS AS AN ALTERNATE BOILER FUEL AT MILAN, INDIANA, AND KANSAS AAP'S' WAS COMPLETED. IT CONCLUDED THAT ALTHOUGH FEASIBLE, IT IS NOT COST EFFECTIVE AT THIS TIME. | 271.8 | 222.8 | 41.6 | SEP 83 | MAR 84 |

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|---------------|--|------------------|--------------------|---|---|--|
| | | | | | | |
| 5 01 4201 A12 | POWER PRODUCTION FROM WASTE HEAT NO ACCOMPLISHMENTS REPORTED. | 147.8 | 93.8 | 54.0 | SEP 84 | SEP 84 |
| 5 02 4201 | CONSERVATION OF ENERGY AT ARMY AMMUNITION PLANTS SEE FOLLOWING INDIVIDUAL TASKS FOR WORK STATUS. | 1,361.9 | 773.2 | 358.6 | SEP 84 | MAR 87 |
| 5 02 4201 A01 | PROCESS ENERGY INVENTORY INSTRUMENTATION HAS BEEN INSTALLED IN THE TNT LINE AT RADFORD AAP. THE MEASURING OF PROCESS VARIABLES WAS BEGUN. STEAM AND ELECTRICITY MEASUREMENTS WILL DETERMINE THE AVERAGE ENERGY USAGE PER POUND OF TNT. | 193.7 | 136.7 | 56.5 | JUN 84 | JUN 85 |
| 5 02 4201 A04 | ENERGY RECOVERY FROM WASTE HEAT EQUIPMENT EVALUATION FOR THE HEAT PIPE WASTE HEAT RECOVERY SYSTEM WAS COMPLETED. TEST RESULTS HAVE INDICATED THAT THE SYSTEM IS ABLE TO RECOVER HEAT FROM THE HOT WASTEWATER TO PREHEAT COLD FRESH WATER AT A RATE OF 12 MILLION BTU/HR. | 419.4 | 282.0 | 118.2 | SEP 84 | MAR 87 |
| 5 02 4201 A14 | POWER PRODUCTION FROM WASTE HEAT NO ACCOMPLISHMENTS REPORTED. | 426.9 | 354.9 | 66.6 | JUN 84 | JUN 85 |
| 5 02 4201 C01 | PROCESS ENERGY INVENTORY AT PINE BLUFF ARSENAL PBA IS CONTINUING AN ENERGY AUDIT OF ITS PRODUCTION, PRODUCTION SUPPORT, AND POLLUTION ABATEMENT FACILITIES, TO IDENTIFY PROBLEMS AND SOLUTIONS TO INEFFICIENT ENERGY USE. | 322.0 | 297.0 | 23.8 | | SEP 86 |
| 5 02 4205 | TNT EQUIVALENCY TESTING FOR SAFETY ENGINEERING TESTING WAS COMPLETED ON CAST TNT CHARGES TO DETERMINE SHAPE EFFECT AT CLOSE IN DISTANCES. SAFETY APPROVAL OF M8 PROPELLANT TEST PLAN WAS OBTAINED. FINAL REPORT ON XM37 PROPELLANT WAS PUBLISHED. | 251.0 | 60.0 | 105.0 | JUN 84 | SEP 84 |
| 5 03 4206 | EVALUATION OF DIMETHYLNITROSAMINE DISPOSAL ON HAAP B-LINE PROCUREMENT PACKAGE FOR CATALYTIC HYDROGENATOR AND AUXILIARY EQUIPMENT HAS BEEN COMPLETED. PROCUREMENT OF ALL EQUIPMENT, MATERIALS AND INSTRUMENTATION INITIATED. EVALUATION OF SLUDGE TREATMENT SYSTEM CONTINUED. | 295.0 | 120.0 | 27.2 | OCT 84 | DEC 85 |
| 5 01 4309 | AMMUNITION FOR THE 120MM TANK MAIN ARMAMENT SEE INDIVIDUAL SUBTASKS FOR WORK STATUS. | 3,520.9 | 2,990.9 | 487.7 | JUN 85 | SEP 84 |
| 5 01 4309 01 | MFG METHODS FOR STICK + JA-2 PROPELLANT JUNK CUTTER TAKEAWAY LINE PROVED TO BE UNSUCCESSFUL. LC SERVO CUTTER-JET STREAM CONVEYOR SYSTEM PERFORMED SATISFACTORILY AND RECOMMENDED FOR IMPLEMENTATION. FINAL VOLUME OF TECHNICAL REPORT UNDER PREPARATION. | 982.9 | 793.9 | 180.9 | JUN 85 | SEP 84 |

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|--------------|--|-----------------------|-------------------------------|--|---|--|
| > 01 4309 02 | EXPLOSIVE LOADING LF 120MM HEAT-MP-1 MATERIAL HANDLING AND PRESS TOOLING DESIGNS WERE COMPLETED. INERT AND EXPLOSIVE PRESSING OPERATION WERE COMPLETED. LOAD ACCEPTANCE CRITERIA AND STATIC TEST FIRING PROCEDURES APPROVED. | 516.0 | 438.0 | 64.9 | JUN 83 | SEP 84 |
| > 01 4309 03 | ASSEMBLY PROCESS DEVELOPMENT PRIMER TORQUING, STAKING, DEPTH GAGING AND RESISTANCE TEST STATIONS HAVE BEEN CONSTRUCTED AND INSTALLED AT IOWA AAP. TESTING, DEBUGGING, AND ACCEPTANCE OF THE STATIONS HAS BEEN COMPLETED. | 917.0 | 807.0 | 100.7 | JUN 83 | SEP 84 |
| > 01 4309 04 | COMBUSTIBLE CARTRIDGE CASE PROCESS - 120MM ALL TECHNICAL WORK ON THIS PROJECT IS COMPLETE. A TECHNICAL REPORT WAS PREPARED BY THE CONTRACTOR, REVIEWED BY ARDC AND RETURNED TO THE CONTRACTOR FOR CORRECTIONS. | 215.0 | 185.0 | 20.6 | JUN 83 | DEC 84 |
| > 01 4309 05 | FORMING OF SABOT SEGMENTS TO NET SHAPE ON APFSUS AMMO AN ECONOMIC ANALYSIS OF FORGING VS EXTRUSION SHOWS A 33 PERCENT COST SAVINGS. DECISION ON THE USE OF THE ORIGINAL FURINGS FOR TESTING WILL BE MADE IN THE NEXT QUARTER. | 466.0 | 413.0 | 46.9 | JUN 83 | SEP 84 |
| > 01 4309 09 | INVESTIGATE FORMING + HEAT TREAT METHODS F/CORE, APDS ADDITIONAL REDUCTIONS IN THE MACHINING CYCLE TIME WERE ACHIEVED THROUGH OPTIMIZATION OF MACHINING PARAMETERS. A FINAL REPORT WAS PREPARED, REVIEWED AND APPROVED. | 313.0 | 263.0 | 47.7 | JUN 83 | SEP 84 |
| > 01 4309 12 | INJECTION MOLDING LF XM829 OBTURATOR THE CONTRACTOR CONVENTIONALLY INJECTION MOLDED 25 NYLON OBTURATOR BLANKS SUCCESSFULLY. THE BLANKS WERE INSPECTED AND ACCEPTED. A FINAL REPORT WAS PREPARED BY THE CONTRACTOR AND REVIEWED. | 111.0 | 91.0 | 20.0 | JUN 83 | SEP 84 |
| > 02 4309 | AMMUNITION FOR THE 120MM TANK MAIN ARMAMENT SEE INDIVIDUAL TASKS. | 3,956.6 | 3,319.3 | 480.9 | SEP 84 | DEC 85 |
| > 02 4309 02 | EXPLOSIVE LOADING LF 120MM HEAT-MP VARIOUS PRESSING CONCEPTS HAVE BEEN STUDIED AND THE OPTIMUM PROCESS FOR PRESS LOADING THE 120MM XM830 PROJECTILE DETERMINED. SPIN FIRE TEST FACILITY COMPLETED. EXPLOSIVE FOR HE PROJECTILE CHANGED FROM GERMAN TYPE OF CUMP A3 TYPE 2. | 502.0 | 392.0 | 106.8 | DEC 84 | |
| > 02 4309 04 | COMBUSTIBLE CARTRIDGE CASE, 120MM ALL EQUIPMENT FOR CONTINUOUS COMBUSTIBLE CARTRIDGE CASE IMPEGNATION IS INSTALLED AND READY FOR TESTING. A SAFETY TEST ON THE EQUIPMENT WILL BE CONDUCTED PRIOR TO USING ANY LIVE MATERIAL. MILESTONES WILL BE REVISED AS A RESULT. | 2,704.0 | 2,295.0 | 299.0 | DEC 85 | |

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|--------------|--|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| 5 82 4309 09 | INVESTIGATE FURNING + HEAT TREAT METHODS F/CORE, APDS THIS WORK WAS CANCELLED BECAUSE OF THE HIGH RISK NATURE OF THE EFFORT. ALSO RECENT APPROVAL OF ROTARY STRAIGHTENING NEGATED MOST OF THE EXPECTED BENEFITS. | 433.3 | 373.3 | 58.0 | JUN 84 | JUN 84 |
| 5 82 4309 21 | BLENDING EXPLOSIVE, COMP R8151 THIS PROJECT HAS BEEN COMPLETED. THE BALANCE OF CONTRACT FUNDS WILL BE RETURNED. | 103.7 | 75.4 | 21.2 | JAN 84 | JAN 84 |
| 5 82 4309 22 | INSTALLATION OF VENTILATION EQUIPMENT IN BUILDING 5008-2 TASK COMPLETED. VENTILATION EQUIPMENT PROCURED, INSTALLED AND PROVED OUT. SINCE ONLY PROCUREMENT, INSTALLATION AND PROVEOUT OF STD COMMERCIAL EQUIPMENT INVOLVED, NO TECHNICAL REPORT WILL BE PREPARED. | 62.1 | 62.1 | | JAN 84 | JAN 84 |
| 5 77 4311 | DEVELOP AUTOMATED PRODUCTION EQUIPMENT FOR XM 692 DEBUGGING OF THE OVERLAY/KILL MECHANISM MACHINE AT LOUISIANA AAP WAS CONTINUED. PREPARATIONS FOR COMPATIBILITY TESTING BY THE DUTCH WEIGHT LOSS METHOD OF THE VYDAX 525 AND THE CYANACROLATE ADHESIVE USED ON THE CORD WRAP MACHINE WERE COMPLETED. | 1,452.9 | 1,184.1 | 266.8 | AUG 78 | JUN 84 |
| 5 81 4311 | DEVELOP AUTOMATED PRODUCTION EQUIPMENT FOR XM 692 NO ADDITIONAL WORK ACCOMPLISHED DUE TO DEFERRED EQUIPMENT PURCHASES. | 460.0 | 429.0 | 32.0 | SEP 82 | JUN 84 |
| 5 82 4312 | ANTI-ARMOR CLUSTER MUNITION PRODUCTION EXPLOSIVE INJECTION A PROTOTYPE PRODUCTION INJECTOR FOR LOADING CEM SUBMUNITIONS WAS FABRICATED. AN INSPECTION PLAN AND PROCESS OPERATIONS CONTROL SYSTEM WAS PREPARED BY THE CONTRACTOR. | 846.1 | 651.4 | 132.0 | JUN 83 | DEC 84 |
| 5 80 4341 | IMPROVED NITROCELLULOSE PURIFICATION PROCESS A HYBRID PROCESS (PARTIAL BATCH ACID BUIL FOLLOWED BY CUNICELL TREATMENT) IS BEING EVALUATED. THIS PROCESS MAY BE ECONOMICALLY ATTRACTIVE. | 982.0 | 815.8 | 166.2 | DEC 81 | JUN 84 |
| 5 81 4341 | IMPROVED NITROCELLULOSE PURIFICATION PROCESS LAB TESTS ARE IN PROGRESS USING SHORT TERM TESTS FOR ESTABLISHING THE ACCEPTABILITY OF STORAGE OF PROPELLANT MADE WITH CUNICELL PURIFIED NC. THE TESTS ARE BASED ON MEASURING STABILIZER DEPLETION AFTER HIGH TEMPERATURE STORAGE. | 617.0 | 215.6 | 363.0 | MAR 83 | JUN 84 |
| 5 82 4341 | IMPROVED NITROCELLULOSE PURIFICATION PROCESS M31A1, M309 AND M6 PROPELLANTS HAVE BEEN MANUFACTURED USING HYBRID PROCESSED NC. THIS MATERIAL IS BEING USED FOR BALLISTIC TESTS AND LABORATORY EVALUATION. A PILOT PRODUCTION LOT OF IMR 5010 (CAL 450) PROPELLANT WILL BE MANUFACTURED AND TESTED. | 359.0 | 196.0 | 17.0 | SEP 83 | JUN 84 |

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|-----------|---|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| 5 81 4344 | ESTABLISH WASTE DISPOSAL TECHNIQUE FOR M687 BINARY PROJECT THIS PROJECT IS COMPLETED. | 200.0 | | 200.0 | DEC 82 | JUL 83 |
| 5 82 4344 | ESTABLISH WASTE DISPOSAL TECHNIQUE FOR M687 BINARY PROJECT THE DISTILLATION COLUMN WAS INSTALLED AT CRDC. SOP AND TEST RUN PLANS WERE SUBMITTED TO THE SAFETY OFFICE. MATERIALS TO SUPPORT PILOT EFFORT WERE ORDERED. | 380.0 | 180.0 | 101.0 | NOV 83 | NOV 84 |
| 5 78 4349 | MODERNIZATION OF PRESS LOADING FOR HEP PROJECTILES ***** DELINQUENT STATUS REPORT ***** | | | | JUN 80 | JUN 84 |
| 5 80 4357 | NONDESTRUCTIVE TEST EQUIP F/LARGE CALIBER MUNITIONS F/M483A1 THE TECHNICAL DATA PACKAGE HAS BEEN COMPLETED. DEBUGGING TESTS TO CORRECT THE AUTOMATED MAGNETIC FLUX LEAKAGE INSPECTION SYSTEM SHORT COMINGS IS UNDERWAY AND IS SCHEDULED FOR COMPLETION IN MAY 1984. | 554.0 | 450.0 | 104.0 | JUN 83 | MAY 84 |
| 5 82 4357 | NONDESTRUCTIVE TEST EQUIP F/LARGE CALIBER MUNITIONS F/M483A1 DEMONSTRATION TEST FOR PROVE-OUT OF AUTOMATED MAGNETIC FLUX LEAKAGE INSPECTION SYSTEM PRIOR TO IMPLEMENTATION IS SCHEDULED FOR JUNE 1984. THE APPLICATION TEST HAS BEEN COMPLETED. THE AMPLIS HAS BEEN DELIVERED AND INSTALLED AT MSAAP. | 124.0 | 69.0 | 41.0 | OCT 83 | UCT 84 |
| 5 82 4364 | ON-LINE BIO SENSORS TO MONITOR MIXED WASTE STREAMS VENTILATORY MONITORING, SUPPORTING BIOASSAYS AND CHEMICAL ANALYSES WERE COMPLETED, THUS ENDING THE DATA GATHERING PHASE OF THE PROJECT. DRAFTING OF THE TECHNICAL MANUAL AND PROTOCOL DEVELOPMENT CONTINUED. | 315.0 | 252.0 | 56.0 | SEP 83 | DEC 83 |
| 5 82 4406 | IMPROVING THE YIELD OF HMX DURING RDX NITROLYSIS THE NITROLYSIS STUDY, COPRODUCT SEPARATION PROCESS DEVELOPMENT, INTEGRATED PROCESS EVALUATION, DATA ANALYSIS, AND COMPUTER MODELLING WAS COMPLETED. TECHNICAL REPORTS ARE IN PREPARATION. | 870.0 | 498.1 | 118.0 | DEC 83 | MAR 84 |
| 5 80 4417 | PROCESS TECHNOLOGY FOR BLENDING RP SMOKE COMPOSITIONS THIS PROJECT HAS BEEN COMPLETED. | 115.0 | | 115.0 | MAY 81 | SEP 81 |
| 5 81 4417 | PROCESS TECHNOLOGY FOR BLENDING RP SMOKE COMPOSITIONS THIS PROJECT IS COMPLETED. | 165.0 | 30.0 | 135.0 | SEP 82 | SEP 83 |
| 5 82 4417 | PROCESS TECHNOLOGY FOR BLENDING RP SMOKE COMPOSITIONS COMPLETED DESIGN OF INTERIM PRODUCTION BLENDING FACILITY AT PINE BLUFF ARMOURED. AWARDED CONTRACTS FOR DESIGN AND INSTALLATION OF EQUIPMENT IN INTERIM BLENDING FACILITY. | 458.0 | 288.0 | 143.0 | SEP 83 | SEP 84 |

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| PROJ NO. | TITLE + STATUS | AUTHORIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|------------|---|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| 79 4444 | BODY FOR M42/M46 GRENADE GRENADES WERE LOADED AND SHIPPED TO YUMA PROVING GROUND FOR TEST SIX GRENADES WERE SHIPPED TO ARDC FOR PANEL TESTS AWAITING THE TEST RESULTS. | 563.0 | 238.7 | 302.3 | SEP 80 | SEP 84 |
| 83 4444 | BODY FOR M42/M46 GRENADE ***** DELINQUENT STATUS REPORT ***** | | | | | JUN 84 |
| 83 4449 | PROGRESS IMPROVEMENT FOR CUMP C-4 DYEING TESTS ON PBX-0280, LX-14-0 AND W109 PRECAT INDICATE THAT NAUTA BLENDER/DYEER IS INEFFICIENT. WULVERINE DYEER IS BEST FOR PBX-0280 AND LX-14-0 COMPOSITIONS. | 500.9 | 305.9 | 58.8 | MAR 85 | DEC 84 |
| 83 4453 | DETERMINE SPACING OF MUNITION ITEMS TO PREVENT PROPAGATION A TECHNICAL REPORT WAS PREPARED FOR THE SAFE SEPARATION DISTANCE FOR CLOUD DETONATORS. AN INITIAL TEST PLAN WAS PREPARED FOR THE SUBMUNITION BLU-97L. EXPLORATORY TESTS WERE CONDUCTED. | 213.0 | | 148.0 | SEP 84 | SEP 84 |
| 79 4454 | AUTO INSPECTION DEVICE EXPLOS CHARGE SHELL (AIDECS) CAM SEE PROJECT NO. 5 82 4454 FOR STATUS. | 709.0 | | | DEC 81 | DEC 84 |
| 80 4454 | AUTO INSPECTION DEVICE EXPLOS CHARGE SHELL (AIDECS) CAM SEE PROJECT NO. 5 82 4454 FOR STATUS. | 878.0 | | | APR 82 | DEC 84 |
| 80 4454 01 | AUTOMATIC INSPECTION DEVICE FOR EXPLOSIVE CHARGE IN SHELL (A SEE SUBTASK NO. 5 82 4454-1 FOR STATUS. | 1,298.0 | | | APR 82 | JUN 84 |
| 80 4454 02 | AUTOMATIC X-RAY INSPECTION SYSTEM (AXIS) SEE SUBTASK NO. 5 82 4454-2 FOR STATUS. | | | | AUG 80 | DEC 84 |
| 81 4454 | AUTO INSPECTION DEVICE EXPLOS CHARGE SHELL (AIDECS) CAM SEE PROJECT NO. 5 82 4454 FOR STATUS. | 1,885.0 | | | JCT 82 | DEC 84 |
| 81 4454 01 | AUTOMATIC INSPECTION DEVICE FOR EXPLOSIVE CHARGE IN SHELL SEE SUBTASK NO. 5 82 4454-1 FOR STATUS. | 1,885.0 | | | MAY 82 | JUN 84 |
| 81 4454 02 | AUTOMATIC X-RAY INSPECTION SYSTEM (AXIS) SEE SUBTASK 5 82 4454-2 FOR STATUS. | | | | UCT 32 | DEC 84 |
| 82 4454 | AUTO INSPECTION DEVICE EXPLOS CHARGE SHELL (AIDECS) CAM SEE SUBTASKS BELOW FOR PROJECT STATUS. | 1,822.0 | | | JUL 83 | DEC 84 |
| 82 4454 01 | AUTO INSP DEVICE FOR EXPLOSIVE CHARGE IN SHELL (AIDECS) SCANNING OF THE IGMA SHELL WAS COMPLETED. THIS DATA WAS PREPARED FOR USE IN POST-MMT EFFORTS FOR ENHANCEMENT OF PRODUCTION SOFTWARE. | 1,362.0 | | | JUL 83 | JUN 84 |

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| PROJ NO. | TITLE + STATUS | AUTHORIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|------------|--|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| 02 4454 02 | AUTO X-RAY INSPECTION SYSTEM (AXIS) NEW ANALYSIS ROUTINES ARE BEING DEVELOPED TO COPE WITH ANOMOLIES IN M456 IMAGES. THE AXIS SYSTEM IS PLANNED TO BE INSTALLED AT MILAN AAP IN FY84. | 460.0 | | | JUL 83 | DEC 84 |
| 02 4469 | AUTOMATIC INSERTION OF GRENADE LAYERS THIS PROJECT REMAINS OPEN FOR ARDC ENGINEERING SUPPORT IN CONJUNCTION WITH THE INSTALLATION OF THE EQUIPMENT AT KANSAS AAP. NO SUPPORT WAS NECESSARY DURING THIS REPORTING PERIOD. A TDP FOR THE GRENADE INSERTION SYSTEM IS AVAILABLE AT ARDC. | 1,146.5 | 933.5 | 213.0 | JAN 80 | JUN 84 |
| 02 4469 | AUTOMATIC INSERTION OF GRENADE LAYERS ALL MECHANICAL ITEM NECESSARY FOR INSTALLATION OF THE GRENADE INSERTION MACHINE WERE COMPLETED. THE ELECTRICAL INSTALLATION DRAWINGS WERE COMPLETED AND ALL THE REQUIRED ELECTRICAL COMPONENTS RECEIVED. EQUIPMENT INSTALLATION BEGAN IN DEC 83. | 350.0 | 302.3 | 47.7 | JAN 81 | JUN 84 |
| 02 4489 | ADVANCED POLLUTION ABATEMENT TECHNOLOGY F/DARCUM FACILITIES SEE INDIVIDUAL TASKS. | 1,350.3 | 1,002.3 | 325.7 | DEC 84 | MAR 85 |
| 02 4489 01 | DISPOSAL OF WASTEWATER TREATMENT SLUDGES EPA LEACHATE EXTRACTION TESTS ON PILOT SLUDGE/FIXATION AGENT COMPOSITIONS COMPLETED AT LSAAAP WITH NO DETECTABLE PB IN LEACHATE. FOR KAAP PILOT SCALE EQUIP WITH 10-IN FLUIDIZED BED REACTOR AND GRANULATION EQUIP INSTALLED AT ISU. PILOT TSTG INITIATED. | 420.9 | 367.9 | 53.0 | DEC 84 | SEP 84 |
| 02 4489 02 | ADVANCED PINK WATER TREATMENT (TNT/RDX/HMX IN WATER) PROCUREMENT/INSTALLATION OF SURFACTANT COMPLEXING/CARBON ADSORPTION SYSTEM COMPLETED. LOGIC PROGRAM DRAFTED FOR PROGRAMMABLE CONTROLLER AND IS READY FOR USE IN DEBUGGING THE PROTOTYPE HYBRID SYSTEM. | 370.5 | 255.5 | 113.0 | DEC 84 | MAR 84 |
| 02 4489 03 | TERTIARY TREATMENT OF HULSTON WASTEWATER A SKID MOUNTED MODULAR CARBON ADSORPTION SYSTEM HAS BEEN INSTALLED AT HULSTON AAP. IT WILL BE EVALUATED AS A TERTIARY TREATMENT SYSTEM. | 148.8 | 110.8 | 34.0 | DEC 84 | SEP 84 |
| 02 4489 05 | ADVANCED AIR EMISSIONS ABATEMENT TESTING OF THE PILOT PLANT LED TO IMPROVEMENTS IN ITS DESIGN, INCREASING THE FLOW RATE OF THE SCRUBBING LIQUID BY A FACTOR OF 10 AND INCREASING THE DROPLET DISPERSAL. | 410.0 | 268.0 | 125.7 | DEC 82 | MAR 85 |
| 03 4489 | ADVANCED POLLUTION ABATEMENT TECHNOLOGY F/DARCUM FACILITIES SEE INDIVIDUAL TASKS. | 86.0 | 65.0 | 11.0 | SEP 86 | SEP 84 |

MANUFACTURING, RESEARCH AND TECHNOLOGY
S U M M A R Y P R O J E C T S T A T U S R E P O R T
2ND SEMIANNUAL SUBMISSION CY 83 RCS DRCMT-301

PLUJ NL. TITLE + STATUS

| PLUJ NL. | TITLE + STATUS | AUTHORIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|--------------|---|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| 5 83 4489 03 | TERTIARY TREATMENT OF HULSTON WASTEWATER THE CARBON ADSORPTION PILOT SYSTEM HAS PROVEN SUCCESSFUL IN THE ABATEMENT OF NITROBODDY/NITRAMINE POLLUTION IN THE ILMTF WASTEWATER AT A 0.4 GPM FLOW RATE. | 86.0 | 65.0 | 11.0 | SEP 86 | DEC 84 |
| > 81 4503 | NEW PROCESS FOR SAWS TRACER AMMUNITION THE PROJECT HAS BEEN SUSPENDED FOR ROOT CAUSE ANALYSIS OF FUNCTION AND CASUALTY FAILURES UNDER PROJECT 5 81 4551 AND WILL RESUME UPON SUCCESSFUL COMPLETION OF THAT EFFORT. | 500.0 | 402.0 | 97.6 | AUG 82 | JUN 84 |
| > 82 4505 | NEW PROCESS FOR SAWS TRACER AMMUNITION THE PROJECT HAS BEEN SUSPENDED FOR ROOT CAUSE ANALYSIS OF FUNCTION AND CASUALTY FAILURES UNDER PROJECT 5 81 4551 AND WILL RESUME UPON SUCCESSFUL COMPLETION OF THAT EFFORT. | 129.0 | | 75.0 | SEP 83 | JUN 84 |
| > 81 4506 | 5.56 MM CARTRIDGE LINKING SYSTEM THE DEMONSTRATION REPORT, OPERATING MANUALS AND TOP FOR THE SAWS 5.56MM CARTRIDGE LINKING MACHINE SYSTEM WERE COMPLETED. THE LINK UNSCRAMBLE, ORIENT AND FEED SYSTEM DESIGN WAS COMPLETED AND FABRICATION INITIATED. | 573.0 | 408.0 | 165.0 | JAN 83 | SEP 84 |
| > 82 4506 | 5.56MM CARTRIDGE LINKING SYSTEM THE DEMONSTRATION REPORT, OPERATING MANUALS, AND TOP FOR THE SAWS 5.56MM CARTRIDGE LINKING MACHINE SYSTEM WERE COMPLETED. THE LINK UNSCRAMBLE, ORIENT AND FEED SYSTEM DESIGN WAS COMPLETED AND FABRICATION INITIATED. | 522.0 | 283.0 | 178.0 | JAN 84 | SEP 84 |
| > 80 4508 | PROCESS IMPROVEMENT OF PRESSABLE RDX COMPOSITIONS DELIVERY OF WYSSMONT DRYER EXPECTED IN MAR 1984. | 505.8 | 333.8 | 171.3 | APR 82 | JUN 84 |
| > 82 4508 | PROCESS IMPROVEMENT OF PRESSABLE RDX COMPOSITIONS WYSSMONT DRYER LIABILITY INDEMNIFICATION ISSUE RESOLVED IN JUL 83. DELIVERY DATE FOR DRYER IS MAR 84. CONTRACT TO TEST VACUUM DRY. THE A COMPOSITIONS RELEASED FOR BIDS IN NOV 83. | 615.9 | 337.9 | 77.0 | SEP 84 | SEP 85 |
| > 82 4511 | DISPOSAL OF FINAL SLUDGE FROM ACID RECOVERY OPERATIONS DESIGN CRITERIA PACKAGE FOR SLUDGE TREATMENT FACILITY COMPLETED IN JULY 1983. DESIGN OF FACILITY INITIATED 15 DEC 1983. INTERIM TECHNICAL REPORT DETAILING ALL ASPECTS OF BENCH SCALE PROGRAM INCLUDING ALL RESULTS OBTAINED BEGUN IN DEC 1983. | 301.9 | 216.9 | 78.0 | DEC 83 | MAR 84 |
| > 83 4511 | DISPOSAL OF FINAL SLUDGE FROM ACIL RECOVERY OPERATIONS PROCUREMENT AND INSTALLATION SCHEDULE FOR THE CATALYTIC HYDROGENATION PORTION OF THE PROTOTYPE PLANT WAS REVISED TO REFLECT A REVISED COMPLETION DATE FOR THE PROTOTYPE PLANT DESIGN. | 420.0 | 337.0 | 22.0 | UCT 85 | MAR 85 |

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
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| PROJ NO. | TITLE + STATUS | AUTHORIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|--------------|--|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| 5 82 4529 | MANUFACTURE OF PRECISION CUNES FOR MEAT PROJECTILES ONE YEAR SLIPPAGE EXPERIENCED IN CONTRACT AWARD ACTIVITY. | 525.0 | | 30.0 | SEP 82 | JUN 85 |
| 5 83 4533 | LOVA PROPELLANT PROCESSING THE USE OF IITRIS METHODOLOGY TO IN-PROCESS HAZARDS CLASSIFICATION WAS INVESTIGATED. THIS PROCEDURE CONSISTS OF CONDUCTING A SERIES OF SENSITIVITY, SCREENING AND EFFECTS TESTS ON THE DESIGNATED LOVA PROP FORMULATIONS, THE INDIV INGRED AND COMBINATION | 398.0 | | 123.6 | SEP 84 | SEP 84 |
| 5 82 4534 | XH855 BULLET CONVERSION OF SCAMP EQUIPMENT THE CARTRIDGE BULKFEEDER WAS SUCCESSFULLY TESTED FOR 11 HOURS OF CONTINUOUS OPERATION WITH ONLY THREE STOPPAGES DUE TO TAMS/MISFEEDS. A COST GROWTH OF \$135,000 WAS AUTHORIZED. | 399.0 | 299.0 | 100.0 | SEP 83 | JUN 84 |
| 5 83 4534 | SAMS BULLET CONVERSION OF SCAMP EQUIPMENT THE PENETRATOR FEEL SYSTEM WAS AWARDED NON-COMPETITIVE TO GULF + WESTERN. SYSTEM DESIGN WAS INITIATED. LAKE CITY WILL PERFORM THE BULLET SUBMODULE CONVERSION. SCOPES OF WORK FOR BOTH ACTIVITIES HAVE BEEN PREPARED FOR THE SECOND YEARS EFFORTS. | 760.0 | 641.0 | 119.0 | APR 85 | APR 85 |
| 5 83 4536 | 5-56 SAMS LINK ORIENTER AND FEED SYSTEM A CONTRACT WAS AWARDED TO BATTELLE NW LAB. RICHLAND, WA IN MARCH 83. THEY HAVE COMPLETED THE INITIAL DESIGN OF THE LINK AUTOMATIC INSPECTION SYSTEM. | 398.0 | 323.0 | | MAR 85 | MAR 85 |
| 5 83 4540 | CAC63 COATING OF 7.62MM BALL PROPELLANT THE CONCEPT STUDY, SITE SUBMISSION, EQUIPMENT SURVEY AND RELOCATION OF THE TWO-STAGE COATER FROM ST. MARKS, FLORIDA TO BADGER AAP HAVE BEEN COMPLETED. | 114.6 | 56.6 | 44.5 | JUL 84 | JUL 84 |
| 5 83 4547 | PRUC TECH FOR XM76 IR SCREENING GREN ' XM49 SMOKE GENERATOR A CLOSED SYSTEM MIXER HAS BEEN IDENTIFIED FOR THE POWER BLENDING OPERATION. AN EXTRUDER HAS BEEN INSTALLED, AND OPERATED. A PROCESS FLOW CHART HAS BEEN PREPARED FOR CURRENT MANUFACTURING PROCEDURE. | 519.0 | 400.0 | 29.0 | JUN 84 | JUN 84 |
| 5 83 4548 | PYRD SAFETY ENHANCEMENT SEE THE FOLLOWING TASKS FOR WORK STATUS. | 1,110.8 | 439.0 | 261.4 | SEP 84 | SEP 84 |
| 5 83 4548 01 | MIXER SAFETY ENHANCEMENT SCRAPE-DOWN TESTING WAS CONTINUED USING A MULLER WITH A TEFLON LINER. VARIOUS PYRTECHNIC COMPOSITIONS WERE EVALUATED IN THE TEFLON LINED MULLER. A PRODUCTION SIZE MULLER WAS MODIFIED WITH TEFLON BLADES AT CANE AAA. | 299.0 | 115.0 | 105.6 | SEP 84 | SEP 84 |

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
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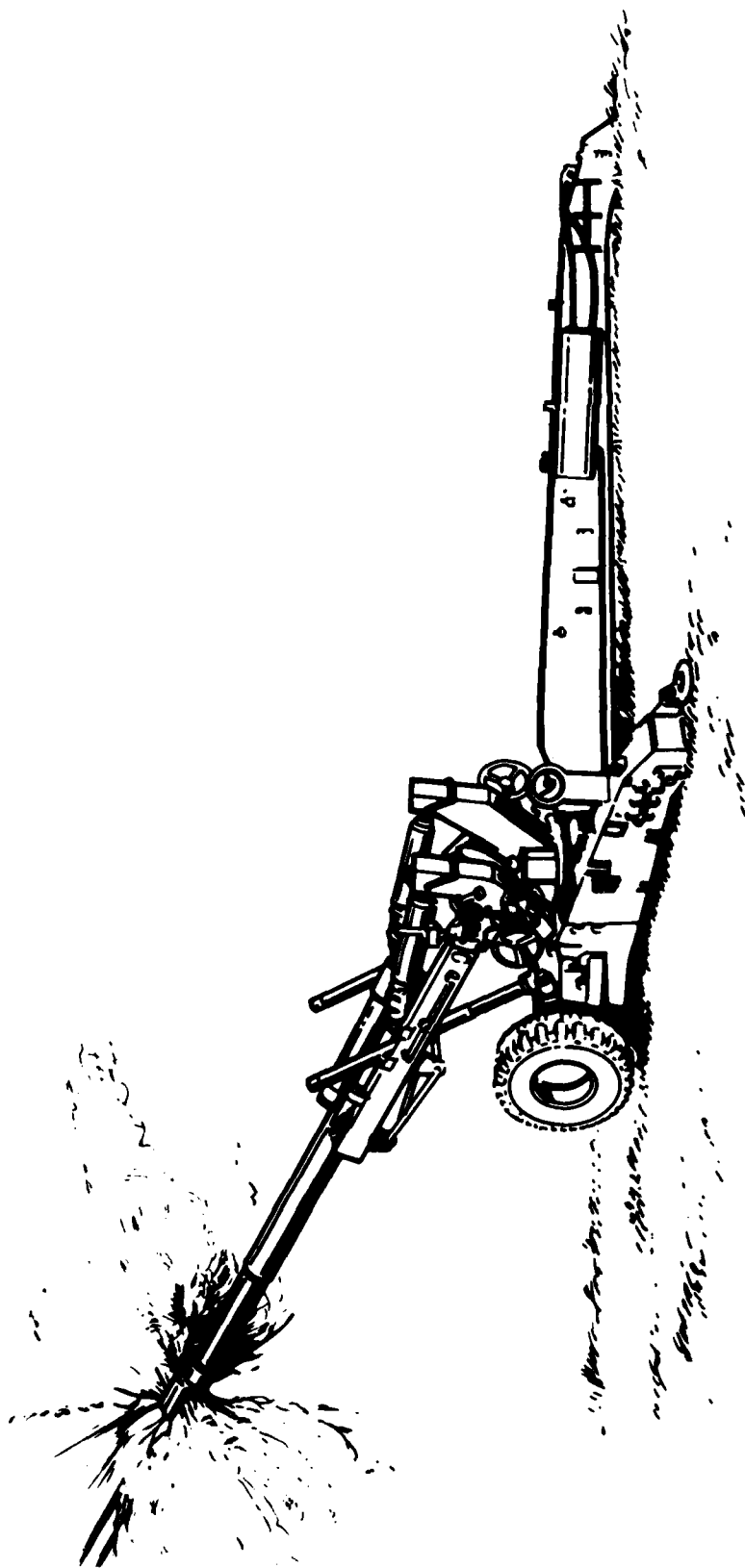
| PKUJ NO. | TITLE + STATUS | AUTHO- RIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|--------------|---|----------------------------|-------------------------------|---|---|--|
| | | | | | | |
| 5 83 4548 02 | TRANSPORT AND CONVEYING SAFETY ENHANCEMENT SWAT WAS AWARDED A CONTRACT TO DESIGN, FABRICATE OR PROCURE A REMOTE TRANSPORT SYSTEM. DESIGN PACKAGES FOR CONVEYOR SYSTEMS WERE RECEIVED. | 335.8 | 255.0 | 38.1 | SEP 84 | SEP 84 |
| 5 83 4548 03 | QUENCHING SAFETY ENHANCEMENT FIRE SUPPRESSION TESTS WERE CONDUCTED WITH SI/AL STARTER MIXES AND M206 COMPOSITIONS. | 280.0 | 170.0 | 51.1 | SEP 84 | SEP 84 |
| 5 83 4548 04 | BAY DESIGN SAFETY ENHANCEMENT OPEN AIR BURN TESTS ON M206 FLARE COMPOSITIONS WERE CONDUCTED AT NSTL TO OBTAIN BURNING CHARACTERISTICS. | 196.0 | 125.0 | 44.6 | APR 84 | SEP 84 |
| 5 82 4551 | MANUFACTURING PROCESS PARAMETER FOR XM855/856 AMMO FM PRODUCED BALL CARTRIDGES VALIDATED AS REFERENCE LOT. A ROOT CAUSE INVESTIGATION IS IN PROGRESS TO DETERMINE THE CAUSE OF THE CURRENT CASE DESIGN DEFICIENCIES. SEVERAL NEW CASE DESIGNS HAVE BEEN BUILT AND TESTED. INITIAL RESULTS ARE SATISFACTORY. | 619.0 | 83.0 | 288.0 | MAR 83 | DEC 84 |
| 5 81 4555 | INFRARED MONITORING OF PYROTECHNIC BLENDING BASED ON THE RESULTS OF THE STUDY, SCREENING OF MIXES SHOULD BE ACCOMPLISHED WITH ULTRA VIOLET EMISSION. THIS WILL REDUCE THE COST OF SURVEILLANCE. | 250.0 | | 185.0 | JUN 82 | JUN 84 |
| 5 82 4557 | ARBAT AS A RESULT OF THE LIGHTNING DAMAGE THE PROGRAM SLIPPED 5 MONTHS. DURING THIS DOWN TIME SOFTWARE WAS CONTINUALLY BEING UPGRADED AND CHECKED. FUNDS HAVE BEEN REQUESTED TO COVER THE CONTRACTOR COST TO REPAIR THE SYSTEM. | 2,500.0 | 2,247.0 | 171.0 | JUN 84 | DEC 84 |
| 5 82 4560 | MUD TAPE-STIFFENER ASSEMBLY PROCESS - M42/M46 GRENADES ON-LINE INSTALLATION, INTERFACING AND DEBUGGING WAS STARTED DURING THIS REPORTING PERIOD. RAM/ACCEPTANCE TESTING AND FINAL REPORTS ARE SCHEDULED TO BE COMPLETED DURING 2Q84. | 141.5 | 106.5 | 22.0 | JUN 83 | MAR 84 |
| 5 82 4563 | XM803 METAL PARTS PRODUCTIVITY SEE SUBTASK FOR WORK STATUS. | 749.7 | 425.2 | 117.0 | JUN 84 | JUN 84 |
| 5 82 4563 01 | IMPROVED STRAIGHTNESS OF DU PENETRATOR BLANKS CONTRACTOR HAS COMPLETED ALL WORK WITH ROTARY ROLL STRAIGHTENING PROVING TO BE THE OPTIMUM PROCESS. DATA BEING CORRELATED FOR SUBMISSION OF FINAL REPORT. | 303.1 | 278.1 | 20.5 | JUN 84 | JUN 84 |
| 5 82 4563 02 | SALT BATH SOLUTION HEAT TREAT FOR DU PENETRATORS CONTRACTOR HAS COMPLETED PROCESSING OF 40 BLANKS TO FINISHED PENETRATORS TO PROVE OUT THE OUTGAS/SALT CYCLE. CYCLE ESTABLISHED IS OUTGAS AT 1500 DEGREES F FOR 2 HRS, SALT RESIDENCE AT 1500 DEGREES F FOR 20 MIN. AND 15 SECOND QUENCH DELAY. | 167.1 | 147.1 | 18.5 | MAR 84 | MAR 84 |

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| PROJ NO. | TITLE + STATUS | AUTHORIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|------------|---|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| 02 4563 03 | OPTIMIZATION OF AGE HARDENING IN DU PENETRATORS ***** DELINQUENT STATUS REPORT ***** | | | | MAR 84 | JUN 84 |
| 02 4563 04 | HEAT TRANSFER AND RESIDUAL STRESS AMARC HAS COMPLETED PRELIMINARY EFFORTS INTO X-RAY STRESS ANALYSIS OF DU MATERIAL, AND IS IN THE PROCESS OF FORWARDING THE COMPLETED FINAL REPORT TO ARDC AS AN INPUT TO THE FINAL 301 REPORT. | 110.5 | 50.0 | 60.5 | MAR 84 | JUN 84 |
| 02 4563 05 | REDUCTION OF CHIPS OXIDATION FINAL REPORT RECEIVED. | 169.0 | 99.9 | 52.5 | MAR 84 | MAR 84 |
| 03 4563 | PROCESS IMPROVEMENT FOR TANK DU PENETRATORS SEE SUBTASKS. | 2,729.4 | 2,073.0 | 203.4 | JUN 85 | JUN 85 |
| 03 4563 04 | HEAT TRANSFER AND RESIDUAL STRESSES DUE HAS DEVISED A PRELIMINARY COMPUTER PROGRAM FOR THE QUENCHING OF DU PENETRATOR BLANKS AND ARE AWAITING DU MATERIAL CHARACTERISTICS TO REFINE IT. TENSILE SPECIMENS HAVE BEEN MACHINED, AND TESTS ARE IN PROGRESS. | 283.5 | | 105.5 | JUN 85 | JUN 85 |
| 03 4563 05 | REDUCTION OF CHIP OXIDATION CONTRACT HAS BEEN AWARDED. | 201.9 | 94.8 | 20.4 | MAR 85 | MAR 85 |
| 03 4563 06 | RECYCLING OF STABILLOY MACHINING CHIPS CONTRACTS AWARDED TO NUCLEAR METALS INC. AND TO AEROJET URDNANCE CORP. AND TESTING HAS BEEN INITIATED. | 788.7 | 700.7 | 45.7 | JUL 85 | JUL 85 |
| 03 4563 07 | FIRING TO NEAR NET SHAPE CONTRACT AWARDED TO AEROJET URDNANCE. FENN SWAGER INSTALLED. FURNACE DELIVERED. PERFORM DESIGN ESTABLISHED. EXTRUDED MATERIAL RECEIVED. | 345.9 | 299.4 | 23.4 | JUN 85 | JUN 85 |
| 03 4563 08 | NON-DESTRUCTIVE TESTING OF A PREFORMED SHAPE RUCKY FLATS RECEIVED THE FUNDING AND HAS INITIATED EVALUATIONS. THREE XM829 BLANKS WERE SENT TO RUCKY FLATS CORRELATION STUDIES. THESE STUDIES ARE IN-PROCESS. | 227.5 | 158.0 | 7.8 | SEP 85 | SEP 85 |
| 03 4563 11 | PROCESS IMPROVE FOR DU PENETRATORS-MG F2 LINERS CONTRACT AWARDED TO NMI. PCO APPROVAL HAS BEEN GIVEN TO NUCLEAR METALS INC TO PRODUCE LINER FORMING EQUIPMENT AND PURCHASE ORDERS HAVE BEEN AWARDED. | 317.6 | 276.1 | 19.8 | JUL 85 | JUL 85 |
| 03 4563 16 | QUENCH PARAMETERS FOR HEAT TREATING DU A CONTRACT HAS BEEN AWARDED TO THERMO ELECTRON CORP. EQUIPMENT FOR HEAT TRANSFER RATE TESTING HAS BEEN DELIVERED. A 2D COMPUTER PROGRAM TO SIMULATE QUENCHING AND RESULTANT RESIDUAL STRESSES IS OPERATIONAL. | 498.3 | 451.8 | 20.8 | JUN 85 | JUN 85 |

S U M M A R Y P R O J E C T S T A T U S R E P O R T 2ND SEMIANNUAL SUBMISSION CY 83 RCS DRCMT-301

| PROJ NO. | TITLE + STATUS | AUTHO- RIZED | CONTRACT VALUES | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|--------------|---|-----------------|--------------------|---|---|--|
| | | | | | | |
| 5 83 4583 20 | IMPROVED DU REDUCTION PROCESSING SCOPE OF WORK HAS BEEN COMPLETED AND A PROCUREMENT PACKAGE ASSEMBLED AND FORWARDED TO PROCUREMENT FOR CONTRACT AWARD BY APRIL 1, 1984. | 66.0 | 50.0 | | JUL 85 | JUL 85 |
| 5 83 4580 | UV-CURE PAINT FOR LARGE CALIBER PROJECTILES CONTRACT SCOPE OF WORK WAS PREPARED. NI INDUSTRIES SUBMITTED A CONTRACT PROPOSAL BUT WAS REVISED DUE TO HIGH COST. MODIFIED PROPOSAL WAS ACCEPTED AND NI INDUSTRIES SIGNED CONTRACT IN DEC 1983. | 80.0 | 65.0 | | MAR 85 | MAR 85 |
| 5 83 4583 | MANUFACTURE OF STEEL FOLDING FINS --- JUST FUNDED. NL 301 REQUIRED. --- | | | | | |
| 5 83 4605 | PROPELLANT BED DEPTH CONTROL IN CASBL AIR DRY A MARKET SURVEY ON STATE OF THE ART AND AVAILABILITY OF EQUIPMENT WAS CONDUCTED. AN RFG WAS FORWARDED TO INTERESTED VENDORS. | 570.0 | 452.0 | 50.0 | JUL 84 | DEC 84 |
| 5 83 4663 | REMOVAL OF BARIUM FROM CUMP A-3, TYPE II WASTEWATER --- JUST FUNDED. NL 301 REQUIRED. --- | | | | | |
| 5 82 6599 | ELECTRO-OPTICAL INSPECTION OF ARTILLERY PROJ UPT CAVITY THE DEBUGGING PHASE WAS UNSUCCESSFUL, DUE TO PRESENCE OF CONTINUOUS FALSE DEFECT SIGNALS, WHICH IN THE AUTOMATIC MODE WOULD REJECT EVERY SHELL, GOOD OR BAD. FURTHER TECHNICAL EFFORT WAS STOPPED SINCE A CURE IS NOT FEASIBLE. | 75.0 | | 56.8 | SEP 83 | JUN 84 |
| 5 79 6693 | BALL PROPELLANT DETERGENT COATING-CAM RELATED DRAFT OF FINAL REPORT WAS INITIATED. IT SHOULD BE FINISHED BY JUNE 1984. DISTRIBUTION OF REPORT PLANNED BY OCTOBER. | 171.0 | 27.5 | 125.2 | NOV 80 | JUL 84 |
| 5 81 6710 | DEV CUMP-AID MODEL OF FURNING OPERATIONS FOR ARTILLERY MPTS ***** DELINQUENT STATUS REPORT ***** | | | | DEC 82 | JUN 84 |



**ARMAMENT, MUNITIONS AND CHEMICAL COMMAND
(AMCCOM)
(WEAPONS)**

A M C C O H (WEAPONS)

CURRENT FUNDING STATUS, 2ND CY83

| FISCAL YEAR | NU. OF PROJECTS | AUTHORIZED FUNDS (\$) | C O N T R A C T A L L O C A T E D (\$) | F U N D I N G E X P E N D E D (\$) | I N H O U S E R E M A I N I N G (\$) | F U N D I N G E X P E N D E D (\$) |
|--------------------|--------------------|-----------------------------|--|--|--|--|
| 76 | 1 | 350,000 | 285,200 | 285,200 (100%) | 64,800 | 45,900 (70%) |
| 77 | 0 | 0 | 0 | 0 (0%) | 0 | 0 (0%) |
| 77 | 2 | 1,205,000 | 984,300 | 984,300 (100%) | 220,700 | 196,500 (89%) |
| 78 | 0 | 0 | 0 | 0 (0%) | 0 | 0 (0%) |
| 79 | 2 | 414,600 | 289,500 | 289,500 (100%) | 125,100 | 121,000 (97%) |
| 80 | 10 | 2,900,500 | 1,504,600 | 1,245,000 (82%) | 1,395,900 | 1,225,300 (87%) |
| 81 | 16 | 4,756,000 | 3,077,800 | 1,715,100 (55%) | 1,676,200 | 1,142,900 (68%) |
| 82 | 39 | 9,231,500 | 2,299,000 | 760,000 (33%) | 6,932,500 | 2,000,000 (40%) |
| 83 | 16 | 4,165,000 | 640,000 | 20,000 (3%) | 3,519,000 | 450,200 (12%) |
| TOTAL | 86 | 23,022,600 | 9,086,400 | 5,299,100 (58%) | 13,936,200 | 5,982,600 (42%) |
| AUTHORIZED FUNDING | | CONTRACT ALLOCATED 39% | | INHOUSE REMAINING 60% | | |

ARMY PROJECT STATUS REPORT
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| PROJ NO. | TITLE + STATUS | AUTHORIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|-----------|---|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| 6 71 7201 | ARTILLERY WEAPON FIRING TEST SIMULATOR THE EQUIPMENT HAS BEEN INSTALLED AND IS OPERATIONAL. THE FINAL REPORT IS BEING PREPARED. THIS PROJECT IS ALMOST COMPLETE. IMPLEMENTATION IS PLANNED. | 820.0 | 699.6 | 120.4 | DCT 78 | JUN 84 |
| 6 76 7580 | PILOT AUTOMATED SHIP LOADING AND CONTROL SYSTEM- CAM REPORT INDICATES NO WORK ACCOMPLISHED THIS PERIOD. | 350.0 | 285.2 | 45.9 | SEP 78 | JUL 84 |
| 6 79 7600 | CHEMICALLY BONDED SAND FOR CLOSE TOLERANCE CASTING ALL WORK COMPLETE WAITING ON TECHNICAL REPORT. | 127.0 | 22.0 | 105.0 | MAR 80 | JUN 84 |
| 6 80 7600 | CHEMICALLY BONDED SAND FOR CLOSE TOLERANCE CASTING THE MILESTONES WERE CHANGED TO PROVIDE TIME FOR MORE PERMEABILITY AND HOT TEAR TESTS, AND TO PREPARE A FINAL TECHNICAL REPORT. | 252.8 | | 240.3 | FEB 82 | JUN 84 |
| 6 82 7707 | AUTOMATED PROCESS CONTROL FOR MACHINING TRAINING OF ENGINEERS AND TECHNICIANS AT ROCK ISLAND ARSENAL CONTINUED. CARBIDE AND CERAMIC CUTTING INSERTS ARE EVALUATED TO DETERMINE MACHINING OPERATIONS. ESTIMATES WERE MADE FOR TOOL STOCKING. | 135.0 | 63.2 | 57.7 | SEP 83 | APR 84 |
| 6 81 7724 | GROUP TECHNOLOGY OF WEAPON SYSTEMS (CAM) A VARIANT PROCESS PLANNING WAS DEVELOPED. SOFTWARE AND HARDWARE FOR A SOLID MODELING SYSTEM WAS INSTALLED. PERSONNEL ARE CURRENTLY BEING TRAINED TO USE THE NEW SYSTEMS. | 180.0 | 157.5 | 22.5 | JUN 83 | APR 83 |
| 6 83 7724 | GROUP TECHNOLOGY OF WEAPON SYSTEMS (CAM) MICROCOMPUTER HARDWARE WAS INSTALLED TO SUPPORT THE COMPUTER AIDED PROCESS PLANNING (ICAPP) SOFTWARE. A CAPP LITERATURE SEARCH WAS CONDUCTED. | 250.0 | 51.0 | 24.7 | SEP 85 | SEP 85 |
| 6 80 7730 | MANUFACTURE OF SPLIT RING BREECH SEALS TEST SPLIT RINGS WERE MANUFACTURED. INTERCHANGEABLE JAW EVAL CONTINUED. PARTS HAVE BEEN ORDERED. CONTACT WAS AWARDED FOR A RING SPLITTING DEVICE. SANDING MACHINES ARE BEING INCORPORATED INTO POLISHING PHASE OF PROJECT. | 363.0 | 87.7 | 227.8 | DEC 82 | SEP 84 |
| 6 82 7730 | MANUFACTURE OF SPLIT RING BREECH SEALS KINKING MACH JAWS HAVE BEEN REDESIGNED. PARTS ARE ON ORDER. CONTRACT FOR AUTOMATIC ABRASIVE SAW HAS BEEN AWARDED, WITH DELIVERY SCHEDULED FOR MAY 1984. A TABLE AND FIXTURING HAS BEEN OBTAINED TO ACCOMMODATE BELT SANDERS FOR THE POLISHING OPERATIONS. | 108.0 | | 42.0 | SEP 84 | SEP 84 |
| 6 77 7750 | NOISE SUPPRESSOR F/PWDER TYPE RECOIL MECHANISM TEST MACHINE MODIFICATIONS ARE BEING MADE TO THE ORIGINAL DESIGN AND ARE ALMOST COMPLETE. THIS PROJECT WILL BE IMPLEMENTED DURING FY84. | 385.0 | 284.7 | 76.1 | FEB 80 | APR 84 |

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|-----------|---|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| 6 73 7602 | ESTABLISH MACHINE TOOL PERFORMANCE SPECIFICATIONS FINAL CORRECTIONS TO PHASE I + PHASE II TECHNICAL REPORTS HAVE BEEN MADE AND REPORTS HAVE BEEN SUBMITTED FOR FINAL REVIEW. | 287.6 | 267.5 | 16.8 | JUN 81 | JUN 84 |
| 6 61 7607 | PROGRAMMED OPTICAL SURFACING EQUIPMENT AND METHODOLOGY (CAM) THE PROCESS CONTROL OPTICAL INTERFEROMETER WAS INSTALLED ON THE OSC/CNC FOR MODULATION TESTING TO EVALUATE STABILITY AND REPEATABILITY. ADDITIONAL SPOT BLOCKS WERE FABRICATED. | 126.0 | 109.0 | 14.0 | JUL 83 | SEP 84 |
| 6 61 7925 | PURE EVACUATOR BORING PRELIMINARY ACCEPTANCE TESTS WERE SUCCESSFULLY CONDUCTED AT THE CONTRACTORS PLANT, AND EQUIP WAS DELIVERED TO WVA ON 31 AUG 83. CONSIDERABLE EFFORT HAS BEEN EXPENDED TO FIND A SITE FOR EQUIP INSTALLATION AND TEST, BUT NONE HAS BEEN FOUND. | 248.0 | 174.5 | 71.7 | SEP 83 | JUN 84 |
| 6 62 7926 | MUT ISOSTATIC PRESSING (HIP) OF LARGE ORDNANCE COMPONENTS TWO HIPPED LOW ALLOY STEEL BILLETS WERE ANALYZED. NEITHER BILLET MET DESIRED MECHANICAL PROPERTY EXPECTATIONS. RESULTS OF EVALUATIONS TO DATE HAVE BEEN INCORPORATED INTO A PROCUREMENT FOR SIX BRECH BLOCKS PREFORMS. DELIVERY EXPECTED 30 MARCH 1984. | 259.0 | 89.0 | 131.0 | SEP 84 | SEP 84 |
| 6 61 7927 | GENERATION OF BASE MACHINING SURFACES A PRELIMINARY ACCEPTANCE TEST WAS CONDUCTED ON 25-26 OCT 83. TESTS WERE RUN AND CONSIDERED ACCEPTABLE. THE MACHINE WAS DELIVERED TO WATERVLIET ARSENAL ON 4 NOV 83. A SITE AT WATERVLIET TO INSTALL AND TEST HAS NOT BEEN FOUND. | 422.0 | 382.0 | 24.0 | SEP 84 | JUN 84 |
| 6 61 7928 | ROBOTIZED BENCHING OPERATIONS (CAM) THE ROBOT HAS BEEN DELIVERED TO WATERVLIET. ACCEPTANCE TESTING HAS NOT YET BEEN ACCOMPLISHED. ROBOT LANGUAGE HAS BEEN DEVELOPED AND IS BEING TESTED. SOFTWARE TO PERFORM GRINDING OPERATIONS ON THE INTERNAL THREADS HAS NOT BEEN TESTED. | 287.0 | 251.2 | 30.0 | SEP 83 | JUN 84 |
| 6 60 7949 | APPLICATION OF GROUP TECHNOLOGY TO RIA MFG (CAM) THIS PROJECT IS ALMOST COMPLETE. A CLASSIFICATION AND CODING/GROUP TECHNOLOGY SYSTEM HAS BEEN IMPLEMENTED. THE SYSTEM HAS BEEN USED TO DEVELOP PLANT LAYOUTS AND SUPPORT A FMS FEASIBILITY STUDY. | 155.0 | 98.6 | 44.9 | MAY 82 | JUN 84 |
| 6 60 7963 | GROUP TECHNOLOGY FOR FIRE CONTROL PARTS AND ASSEMBLIES THIS EFFORT IS MORE OR LESS AT A STAND-STILL WAITING ON THE AF TO DELIVER THE GISS SOFTWARE. | 348.5 | 21.8 | 290.0 | DEC 81 | SEP 84 |
| 6 61 7985 | SMALL ARMS WEAPONS NEW PROCESS PRODUCTION TECHNOLOGY MACH MODIFICATIONS TO ULTRASONICALLY ASSISTED GUN DRILLER COMPLETED. HUNED BARRELS RECEIVED. KENNAMETAL BORING BARS RE-DESIGNED. COLD FORGING MANDRELS HAVE BEEN ACCEPTED. | 436.0 | 250.0 | 171.0 | OCT 82 | MAY 84 |

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| | | | | | | |
| 0 02 7985 | SMALL ARMS WEAPONS NEW PROCESS PRODUCTION TECHNOLOGY PROJECT 40 PERCENT COMPLETE. RAPID FLOW PLATING SUBTASK DELETED. CONTRACT COMPLETION SCHEDULE FOR AUGUST 1984. | 620.0 | 316.0 | 108.0 | OCT 83 | AUG 84 |
| 0 02 7985 B | SMALL ARMS WEAPONS NEW PROCESS TECH-BARREL BROACHING THE STATUS REPORT WAS NOT BROKEN DOWN ACCORDING TO SUBTASKS. SEE 6 82 7985 FOR STATUS. | | | | | UCT 84 |
| 0 02 7985 C | SMALL ARMS WEAPONS NEW PROCESS TECH-MS MACHINING THE STATUS REPORT WAS NOT BROKEN DOWN ACCORDING TO SUBTASKS. SEE 6 82 7985 FOR STATUS. | | | | | UCT 84 |
| 0 02 7985 D | SMALL ARMS WEAPONS NEW TECH-RAPID FLOW PLATING 40 PERCENT OF SUB IS COMPLETE. CAL .50 RAPID FLOW PLATING EFFORT HAS BEEN DELETED. H-11 STEEL FOR COLD FORGED CAL .50 CHAMBERS HAS BEEN RECEIVED. A CONTRACT WAS AWARDED TO FLOW INDUSTRIES TO DEVELOP A STRAIGHTENING ALGORITHM. | 620.0 | 316.0 | 108.0 | | AUG 84 |
| 0 03 7985 | SMALL ARMS WEAPONS NEW PROCESS PRODUCTION TECHNOLOGY PROJECT 5 PERCENT COMPLETE. CONTRACTOR TOOK ISSUE WITH GOVERNMENT MATERIAL ESTIMATE. ACTION TO OBTAIN 5300 POUNDS ADDITIONAL IS IN PROCESS. | 530.0 | 355.0 | 36.0 | UCT 84 | UCT 84 |
| 0 80 8017 | POLLUTION ABATEMENT PROGRAM THE BATCH TYPE RECYCLING SYSTEM FOR USED CUTTING FLUIDS HAS BEEN IN FULL OPERATION. A TOTAL OF 336 MACHINES HAVE BEEN CLEANED UP AND PLACED IN THE PROGRAM FOR PERIODIC PUMP OUT AND RECYCLE. THE FINAL TECH REPORT WAS WRITTEN AND IS NOW BEING REVISED. | 86.0 | | 85.9 | JAN 81 | JUN 84 |
| 0 80 8024 | HIGH SPEED ABRASIVE BELT GRINDING EQUIPMENT HAS BEEN RECEIVED AT MVA AND ARRANGEMENTS ARE BEING MADE FOR ITS INSTALLATION. | 324.0 | 297.5 | 21.8 | SEP 82 | DEC 83 |
| 0 82 8024 | HIGH SPEED ABRASIVE BELT GRINDING HIGH SPEED ABRASIVE BELT GRINDER HAS BEEN SHIPPED TO MVA. FLOOR SPACE HAS BEEN REALIED FOR INSTALLATION OF THE EQUIP. | 142.0 | | 71.8 | SEP 84 | SEP 84 |
| 0 02 8030 | MANUFACTURING GUIDE FOR ELASTOMERIC SEALS AN ECP HAS BEEN INITIATED TO REVISE THE LOW TEMPERATURE BRITTLENESS REQUIREMENT TO A HIGHER TEMPERATURE. THIS WILL RESULT IN A MORE REALISTIC MATERIAL REQUIREMENT. CHEMIGUM HR967 WAS EVALUATED, AND M140 GUN SEAL MOLDS ARE BEING FABRICATED. | 123.0 | | 39.4 | MAY 83 | SEP 84 |
| 0 01 8030 | COATING TUBE SUPPORT SLEEVES WITH BEARING MATERIALS THE RESULTS OF THE LAST FIRING TEST OF GUN MOUNDS CONTAINING M1 PISTONS AND FOLLOWERS WITH IMPROVED SURFACES WERE GOOD. AN ECP HAS BEEN WRITTEN AND IS BEING REVIEWED BY THE M1 PROGRAM MANAGER. | 200.0 | 20.8 | 166.0 | JUN 82 | JUN 84 |

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| | | | | | | |
| 6 80 8047 | PASS THRU STEADY RESTS FOR TUBE TURNING CONTRACTOR WAS DECLARED TO BE IN DEFAULT. EQUIP WAS RETURNED TO SENECA ARMY DEPUT. EVAL IS BEING CONDUCTED TO DETERMINE FEASIBILITY OF COMPLETING WORK IN-HOUSE. | 369.0 | 273.5 | 89.1 | JUL 83 | SEP 84 |
| 6 82 8050 | RECYCLING SPENT GUN TUBES BY ESR MELTING THREE ESR INGOTS HAVE BEEN FORGED TO 105MM M68 PREFORM-SIZED SOLID FORGINGS. THESE WILL BE FURTHER REDUCED TO STEP FORGINGS WITH DIAMETERS OF 6.79 AND 9.46 INCHES AND HEAT TREATED FOR MECHANICAL PROPERTY TESTING. | 204.0 | | 76.0 | MAY 84 | SEP 84 |
| 6 80 8051 | APPLICATION AND CONTROL OF MACHINE TOOLS (CAM) CUTTING TOOL DATA BASE WAS ANALYZED WITH ADD PERSONNEL. MACH TOOL PERF AND MAINT LATA BASES WERE REVIEWED IN ORDER TO ESTAB A PREVENTATIVE MAINT PROGRAM. FINAL TECH REPORT HAS BEEN REVIEWED AND CONTRACTOR IS MAKING THE REQUIRED CHANGES. | 208.5 | 150.6 | 49.8 | AUG 81 | JUN 84 |
| 6 81 8054 | OPTICAL SCRATCH AND DIG STANDARDS FOR FIRE CONTROL SYSTEMS SCRATCH SAMPLES DID NOT CORRELATE WITH STANDARDS BUT WERE USED AS BASIS FOR PATTERN REEVALUATION. NEW SAMPLES SHOULD HAVE NO COLOR AND HAVE UNIFORM SCATTERING. PRINTING MASK IS NOT IN SPEC. IT HAS BEEN SENT BACK TO QUALITRON AND ANOTHER IS EXPECTED. | 266.0 | 146.1 | 76.9 | AUG 84 | AUG 84 |
| 6 80 8057 | DUAL RIFLING BROADCH REMOVAL SYSTEM RIFLING BARS HAVE BEEN REMACHINED. FOUNDATIONS HAVE BEEN PREPARED AND BASIC MECHANISMS INSTALLED. FURTHER WORK HAS BEEN CURTAILED BECAUSE THE RIFLING EQUIP WAS NEEDED TO PRODUCE 105MM M2A2 TUBES. | 215.0 | 21.5 | 148.4 | SEP 82 | SEP 84 |
| 6 82 8062 | RAPID INTERNAL THREADING FIVE TECHNICAL PROPOSALS WERE RECEIVED AND ARE BEING EVALUATED. A BULLARD IS PRESENTLY BEING RESERVED BY DIPEC FOR THIS PROJECT. | 366.0 | | 23.7 | JUL 84 | APR 85 |
| 6 82 8102 | POWDER METALLURGY FORGINGS WEAPONS COMPONENTS A CONTRACT TO ESTABLISH PRODUCTION PARAMETERS FOR SPLIT RING COMPONENTS HAS BEEN LET. IN ADDITION, A MINIMUM OF 20 PROTOTYPE SPLIT RINGS WILL BE PRODUCED BY P/M FORGING TO BE USED IN EVALUATING THE EFFECTS OF THIS PROCESS. | 110.0 | 76.0 | 28.0 | SEP 84 | SEP 84 |
| 6 83 8102 | APPL OF POWDER METALLURGY FORGING TO WEAPON COMPONENTS NO PROGRESS REPORTED THIS PERIOD. | 142.0 | | 18.8 | SEP 85 | SEP 85 |
| 6 82 8103 | HIGH VELOCITY MACHINING DARPA AMRP EOPP WAS ATTENDED, USING FY83 FUNDING. FUNDS FROM THIS PROJECT ARE BEING HELD FOR PREPARATION OF FINAL REPORTS. | 37.0 | | 35.0 | SEP 83 | SEP 84 |

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| 6 83 8103 | HIGH VELOCITY MACHINING A LATHE HAS BEEN OBTAINED FROM MECHANICSBURG AND ARRANGEMENTS HAVE BEEN MADE FOR INSTALLATION. ADDITIONAL INSTRUMENTATION HAS BEEN ORDERED. | 285.0 | | 23.1 | SEP 85 | SEP 85 |
| 6 81 8105 | ESTABLISH ROUGH THREAD BLANKS, 8 IN M201 BUSHING NECESSARY EQUIP MODIFICATIONS HAVE BEEN MADE. FIXTURE DESIGN AND HARDWARE HAS BEEN COMPLETED. THE SLUTTING HEAD HAS BEEN INSTALLED THE CONTRACTOR IS PRESENTLY PROGRAMMING THE CONTROLS IN PREPARATION FOR TESTING, TO BEGIN IN JAN 1984. | 292.0 | 194.9 | 25.3 | SEP 83 | DEC 84 |
| 6 82 8106 | LARGE CALIBER POWDER CHAMBER BORING PRECISION POSITIONING SYSTEM WAS INITIALLY TESTED AND SEVERAL DEFICIENCIES WERE DISCOVERED. ALL IDENTIFIED PROBLEMS WERE CORRECTED, AS DETERMINED BY RETESTING. | 72.0 | 55.0 | 17.0 | SEP 84 | SEP 84 |
| 6 80 8107 | KEEP FEED CRUSH FURN GRINDING CONTINUED EFFORTS TO HAVE EQUIP INSTALLED. | 578.7 | 553.4 | 27.3 | MAY 83 | SEP 84 |
| 6 81 8107 | KEEP FEED CRUSH FURN GRINDING COMMUNICATED WITH WATERVLIET ARSENALS OPERATIONS DIRECTORATE (AUD) ON SEVERAL OCCASIONS IN AN ATTEMPT TO HAVE THE EQUIPMENT INSTALLED. BLDG 20 HAS BEEN IDENTIFIED FOR INSTALLATION OF THE EQUIPMENT. | 73.0 | | 41.0 | JUL 84 | SEP 84 |
| 6 82 8108 | PRODUCTION/IN-PROCESS INSPECTION OF OPTICAL BONDS SAMPLE ADHESIVE BONDS OF OPTICAL COMPONENTS HAVE BEEN TESTED. HEAT CYCLING CAUSED DISTORTIONS. PRODUCTION FIRE CONTROL UNITS SUBJECTED TO SAME TESTS DID NOT EXHIBIT SAME PHENOMENA. TESTS ARE UNDERWAY TO DETERMINE BOND CONFIGURATION EFFECTS. | 205.0 | | 160.2 | DEC 83 | AUG 84 |
| 6 82 8113 | ESTABLISHMENT OF ION PLATING PROCESS FOR ARMAMENT PARTS THE IVD ALUMINUM PROCESS HAS BEEN ESTABLISHED AND IS A VIABLE REPLACEMENT FOR CADMIUM COATING. ALL PROCESSES AND PARAMETERS WILL BE DOCUMENTED IN A FORTHCOMING TECHNICAL REPORT. | 142.0 | | 112.0 | SEP 83 | FEB 84 |
| 6 83 8120 | ADAPTIVE CONTROL TECHNOLOGY (CAM) DIPEC IS SEARCHING FOR A GRINDER. AS SOON AS ONE IS LOCATED THE RETROFIT EQUIPMENT SPECIFICATION WILL BE FINISHED. | 495.0 | | 54.3 | SEP 85 | SEP 85 |
| 6 81 8135 | IN-PROCESS CONTROL OF MACHINING A BOSTON MACHINING MACHINE WAS PURCHASED. A DIFRACTO LIGHT BEAM GAUGE AND SONY ELECTRONIC SCALES WERE MOUNTED ON THE MACHINE. A HP MODULAR COMPUTER WAS PROCURED AND FITTED INSIDE THE NC CONSOLE. THESE ITEMS WERE TESTED. SEE MMT PROJECT 6 82 8135. | 906.0 | 647.3 | 190.2 | OCT 82 | AUG 84 |

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| | | | | | | |
| 6 02 0130 | IN-PROCESS CONTROL OF MACHINING SEE MMT PROJECT 6 01 8135. BOTH INDIVIDUALLY AND AS A SYSTEM, A FINITE ELEMENT ANALYSIS WAS CONDUCTED TO DETERMINE WORKPIECE DEFLECTIONS WITH RESPECT TO CUTTING FORCES FOR THE CUTTERS PRESENTLY USED. | 841.0 | 594.3 | 10.3 | FEB 84 | JUL 85 |
| 6 01 8130 | IMPROVED IMPULSE PROGRAMMERS FOR HYDRAULIC SIMULATORS A COMPUTER MODEL WAS GENERATED TO AID IN DETERMINING THE BEST REDESIGN OPTION. THE PROGRAMMER PISTON AND SLEEVE HAVE BEEN REDESIGNED AND SUBMITTED FOR FABRICATION. | 80.0 | | 29.5 | SEP 83 | JUL 84 |
| 6 02 0151 | PORTABLE ENGRAVING SYSTEM SEVERAL CONTRACT MODIFICATIONS HAVE BEEN MADE. COMPUTER SYSTEM HAS BEEN CHANGED TO A COLUMBIA/QUAD SCREEN SYSTEM. THE ENGRAVER HEAD TRAVEL AREA HAS BEEN REDUCED FROM 24X24 INCHES TO 14X14 INCHES. | 171.0 | 95.0 | 20.8 | JAN 84 | SEP 84 |
| 6 01 0154 | COMPUTER INTEGRATED MANUFACTURING (CIM), DDNC A CONTRACT FOR A PILOT DNC SYSTEM WAS AWARDED TO WHITE SUNDSTRAND MACHINE TOOL CO. EQUIPMENT DELIVERY IS SCHEDULED FOR MAY 1984. | 442.0 | 326.5 | 108.2 | DEC 83 | SEP 84 |
| 6 03 0154 | COMPUTER INTEGRATED MANUFACTURING (CIM) FOR CANNON A CONTRACT HAS BEEN AWARDED TO WHITE SUNDSTRAND MACHINE TOOL CO. EQUIPMENT DELIVERY IS SCHEDULED FOR MAY 1984. | 650.0 | 121.5 | 12.0 | SEP 84 | NOV 85 |
| 6 01 0160 | STANDARDS FOR DIAMOND TURNED OPTICAL PARTS COMMERCIALY AVAILABLE INSTRUMENT IS NOW MARKETED THAT MEETS THE NEEDS OF THE EFFORT. THE INSTRUMENT COSTS LESS THAN \$50K AND CAN USE EITHER THE TOTAL INTEGRATED SCATERING TECHNIQUE OR THE BI-DIRECTIONAL REFLECTANCE DISTRIBUTION FUNCTION. | 189.0 | 84.0 | 105.0 | DEC 82 | JUN 84 |
| 6 02 0165 | STANDARDS FOR DIAMOND TURNED OPTICAL PARTS A SURVEY OF DOD POTENTIAL USERS INDICATED AN ACCEPTANCE OF A TALANDIC INSTRUMENT AND RELATED TECHNIQUES. REFLECTIVE OPTICAL SURFACES-MIRRORS AND PRECISION MACHINING SURFACE EVALUATION WERE THE AREAS OF EMPHASIS FOR THE DOD SURVEY. | 238.0 | 125.0 | 75.0 | OCT 83 | JUN 84 |
| 6 01 0209 | PILOT PRODUCTION OF GRADIENT INDEX OPTICS REDESIGN OF M19 BINOCULAR EYEPIECE WITH CAD EQUIPMENT IS COMPLETE. CANDIDATE GLASSES AND DIFFUSANTS FOR FINAL GRIN LENS FAB PHASE HAVE BEEN DESIGNATED. PROTOTYPE GRIN LENS BLANKS HAVE BEEN FABRICATED AND MEET THE REQUIRED GRADIENT CHARACTERISTICS. | 374.0 | 334.0 | 25.0 | MAY 83 | JAN 85 |
| 6 02 0234 | IMPROVED CASTING TECHNOLOGY (ICAD/CAM) CURRENT PRODUCTION RECORDS WERE SCREENED TO DETERMINE LIKELY CANDIDATES FOR DETAILED ANALYSIS. A TEST WAS DESIGNED TO COMPARE COOLING RATES FOR CHEMICALLY BONDED SAND AND GREEN SAND. | 250.0 | | 54.2 | MAR 84 | FEB 85 |

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|-----------|---|------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| 0 83 0231 | IMPROVED CASTING TECHNOLOGY (CAD/CAM) CASTING DESIGN COMPUTER PROGRAMS HAVE BEEN EVALUATED FOR USE AT RIA. COMPUTER SYSTEMS WERE PROCURED AND ARE BEING USED. | 136.0 | | 0.5 | FEB 85 | FEB 85 |
| 0 82 0230 | BURING BREECH RING LUGS HORIZONTAL MILLING MACH HAS BEEN SET UP IN MACHINE PROCESSES SHOP FIXTURE FAB IS ON SCHED. MOST TOOLING HAS BEEN RECD. RUTABROACH CUTTER EVAL WAS VERY SUCCESSFUL. WORK ON HIGH VOL COOLANT AND ELECTRICAL SYSTEMS HAS BEEN INITIATED. | 203.0 | | 71.8 | AUG 84 | SEP 84 |
| 0 82 0241 | COMPUTER DIAGNOSTICS AND CONTROL FOR BORE GUIDANCE THE SPECIFICATIONS AND TECHNICAL DATA PACKAGE FOR A COMPUTER AIDED BORE-GUIDANCE SYSTEM WERE DEVELOPED. | 308.0 | | 28.4 | JUN 85 | SEP 85 |
| 0 02 0242 | DUAL PRESS STRAIGHTENING OF GUN TUBES MADE AND TRIED TWO POINT LOADING DEVICE ON A 105M68 AND DETERMINED CHANGE IN FRACTURE TOUGHNESS. VERIFIED BY TRIAL THE EQUATIONS FOR RESIDUAL STRESS, LOAD VS DEFLECTION AND DEFLECTION VS STRAIN. CHECKED COLD STRAIGHTENING EFFECT ON AUTOFRET STRESS. | 120.0 | 1.7 | 83.3 | NOV 83 | SEP 84 |
| 0 02 0243 | COMPUTER CONTROL FOR ELECTRODEPOSITION SYSTEMS DEFINITIONS OF INPUT/OUTPUT REQUIREMENTS FOR THE NEW 120MM CHROME PLATING FACILITY AND NEW MEDIUM CALIBER CHROME PLATING FACILITY HAVE BEEN COMPLETED. A DIAGNOSTICS SIMULATOR HAS BEEN DEFINED AND ACQUISITION OF COMPONENTS INITIATED. | 301.0 | 51.2 | 225.0 | MAY 84 | UCT 84 |
| 0 03 0243 | COMPUTER CONTROL FOR ELECTRODEPOSITION SYSTEMS THE SIMULATOR CONSTRUCTION IS ABOUT 20 PCT COMPL. APPROX 50 PCT OF THE HARDWARE FOR CONSOLE IS ON HAND AND THE REMAINDER IS ON ORDER. THE CONTROLLER PROCUREMENT PACKAGE REQUIRED FOR PURCHASING THE REST OF THE SYSTEM IS COMPLETED AND IS BEING STAFFED. | 260.0 | | 15.4 | SEP 84 | SEP 84 |
| 0 02 0244 | OPTIMIZE THE HEAT TREATMENT OF ROTARY FORCE TUBES ANALYSES OF TWO 120MM HEATS OF GUN STEEL HAVE SHOWN SIGNIFICANT DIFFERENCES IN THE OXYGEN CONTENT. ADDITIONAL HEATS OF GUN STEEL ARE BEING PROCURED TO VERIFY THE EFFECT OF OXYGEN LEVEL. THE HEATS WILL BE MADE INTO 105MM PREFORMS FOR FOLLOW-UP WORK. | 290.0 | | 68.9 | MAR 84 | SEP 85 |
| 0 02 0245 | APPLICATION OF EROSION RESIS LOW CONTRACTION CHROMIUM PLATE EIGHT FULL SCALE GUN TUBES HAVE BEEN PARTIALLY PLATED IN BORE LENGTH WITH L.C. CHROME. LIMITED POWER CURRENT CAPACITY PREVENTS FULL LENGTH PLATING. A NEW 30,000 AMP RECTIFIER HAS BEEN DELIVERY AND ITS INSTALLATION WILL BE COMPLETE IN 2-3 MONTHS. | 241.0 | 81.5 | 155.3 | JUN 84 | SEP 84 |
| 0 02 0246 | APPLICATION OF EROSION RESIS LOW CONTRACTION CHROMIUM PLATE PLATING LC CHROMIUM DEPOSITS IN GUN BORES HAS BEEN EXPANDED FROM 105MM BORES TO 155MM BORES. EACH TUBE WAS PARTIALLY PLATED IN BORE LENGTH. A NEW 30,000 AMP RECTIFIER IS BEING INSTALLED SO FULL LENGTH PLATING OF THE BORES CAN BE ACCOMPLISHED. | 195.0 | | 103.7 | SEP 84 | SEP 84 |

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|-----------|--|----------------------------|-------------------------------|---|---|--|
| | | | | | | |
| 0 02 0246 | GAS CHECK SEAT FINISHING A CONTRACT HAS BEEN AWARDED. | 153.0 | 42.2 | 62.9 | JUN 84 | JUN 85 |
| 0 02 0248 | APPLICATION OF HIGH-RATE CUTTING TOOLS LITERATURE ON HS METAL REMOVAL HAS BEEN REVIEWED. WORKPIECE MATERIAL/COATED CARBIDES/CERAMIC AND CERMET TOOLS HAVE BEEN SELECTED FOR TEST. DEDICATED EQUIPMENT FOR TURNING AND DRILLING TESTS HAS BEEN OBTAINED. TOOL GRADES AND GEOMETRIES ALSO SELECTED. | 102.0 | | 56.4 | JUN 83 | DEC 84 |
| 0 02 0251 | IMPROVED MELTING PRACTICES A CONTRACT WAS AWARDED TO ANALYZE HYDROGEN, NITROGEN AND OXYGEN IN THE METAL. CERAMIC FILTERS FOR THE GATING SYSTEM HAVE BEEN ORDERED. | 193.0 | 38.5 | 115.0 | JUN 83 | FEB 85 |
| 0 03 0251 | IMPROVED MELTING PRACTICES THE ARGON OXYGEN DECARBURIZATION (AOD) PROCESS HAS BEEN SELECTED FOR TRIAL STEEL HEATS. THE SCOPE OF WORK FOR THE AOD TESTS HAS BEEN PREPARED AND A CONTRACT WILL BE AWARDED. | 164.0 | | 20.3 | FEB 85 | FEB 85 |
| 0 02 0252 | INDUCTION HEATING OF A VARYING DIAMETER PREFORM PURCHASE REQUISITION ISSUED TO MODIFY ONE OF THE FOUR COIL LINES FOR EVALUATION. IF PERFORMANCE IS SATISFACTORY THE OTHER THREE WILL BE MODIFIED. | 241.0 | 53.9 | 88.3 | MAR 84 | MAR 85 |
| 0 02 0253 | MACHINE TOOL DYNAMIC MEASUREMENTS AND DIAGNOSTICS NINE TECHNICAL PROPOSALS WERE RECEIVED AND EVALUATED. | 190.0 | | 64.7 | APR 84 | SEP 84 |
| 0 02 0254 | AUTOMATED SURFACE COATING OF CANNON - PAINTING A CONCEPT FOR MATERIAL HANDLING IS BEING REVIEWED. THIS CONCEPT IN CONJUNCTION WITH AUTOMATIC SURFACE COATING EQUIPMENT IS BEING CONSIDERED IN THE DESIGN OF AN AUTOMATED PAINT SPRAY CONCEPT. | 80.0 | | 24.9 | JAN 84 | SEP 84 |
| 0 02 0259 | IMPROVED MANUFACTURING PROCESS FOR FIRE CONTROL REGISTERS THE MECHANICAL ELEMENTS OF THE MACHINE HAVE BEEN FABRICATED. THIS STRUCTURE MUST BE STRESS RELIEVED AND FINISHED MACHINED. WORK IS CONTINUING ON THE ELECTRICAL AND ELECTRONIC HARDWARE. | 261.0 | | 109.6 | SEP 84 | SEP 85 |
| 0 02 0262 | PRODUCTION METHODS FOR OPTICAL WAVEGUIDES ARMY EVALUATION OF FIRST SAMPLES OF ARSENIC-IMPLANTED WAVEGUIDES IS IN PROGRESS. PLANNING FOR THIS EFFORT INDICATES PILOT LINE EQUIPMENT WILL BE PURCHASED AND PUT ON-LINE. | 480.0 | 336.0 | 102.0 | JAN 83 | OCT 85 |
| 0 02 0263 | PRODUCTION/IN-PROCESS INSPECTION OF LASER RANGEFINDERS A CONTRACT MODIFICATION IS UNDERWAY TO INCLUDE DYNAMIC RECEIVER SENSITIVITY FOR M60A3 VEHICLE, MATCHING THE RECEIVER/TRANSMITTER. THE PROCESS ACCEPTANCE AND VALIDATION TECHNIQUES HAVE BEEN COMPLETED. | 355.0 | 100.0 | 189.0 | AUG 83 | SEP 84 |

SUMMARY PROJECT STATUS REPORT
MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
2ND SEMIANNUAL SUBMISSION CY 83 RCS DRCMT-301

| PROJ NO. | TITLE + STATUS | AUTHORIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|-----------|--|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| 0 02 0261 | STRESS PEENING OF HELICAL COMPRESSION SPRINGS SPRINGS OF THREE DIFFERENT WIRE SIZES HAVE BEEN FABRICATED AND STRESS PEENED. FATIGUE TESTING OF THE SMALLER WIRE SIZE SPRINGS HAS BEEN COMPLETED AND IS 75 PERCENT COMPLETE FOR THE TWO LARGER WIRE SIZE SPRINGS. | 139.5 | 80.5 | 49.7 | AUG 83 | JUL 84 |
| 0 01 0305 | INTEGRATED MANUFACTURING SYSTEM (IMS) - (CAM) SCOPE OF WORK HAS BEEN UPDATED AND REVISED. INTERVIEWS AND BRIEFINGS WERE CONDUCTED WITH VARIOUS ROCK ISLAND ARSENAL PEOPLE. THE ARMY AUTOMATION MANAGEMENT APPROVALS HAVE BEEN RECEIVED TO PROCEED TO MILESTONE TWO OF THE PROJECT LIFE CYCLE. | 235.0 | | 42.6 | JUL 82 | SEP 83 |
| 0 02 0305 | INTEGRATED MANUFACTURING SYSTEM (IMS) - (CAM) NO SIGNIFICANT WORK ACCOMPLISHED UNDER THIS PROJECT. SEE PROJECT 6818305 FOR EFFORT STATUS. | 204.0 | | | SEP 86 | SEP 85 |
| 0 03 0305 | INTEGRATED MANUFACTURING SYSTEM (IMS) - (CAM) NO SIGNIFICANT WORK ACCOMPLISHED UNDER THIS PROJECT. SEE PROJECT 6818305 FOR EFFORT STATUS. | 75.0 | | 41.7 | OCT 84 | SEP 85 |
| 0 02 0306 | ON-LINE PRODUCTION INFORMATION SYSTEM (CAM) AN RFP WAS RELEASED FOR TECHNICAL SERVICES. A STRUCTURED ANALYSIS IS IN PROGRESS TO DETERMINE THE REQUIREMENTS FOR MANUFACTURING COMPUTER SUPPORT. MANUFACTURING PLANNING AND CONTROL ARE AREAS OF EMPHASIS, AT ROCK ISLAND ARSENAL. | 70.0 | | 6.5 | OCT 84 | SEP 84 |
| 0 03 0306 | ON-LINE PRODUCTION INFORMATION SYSTEM - RIA (CAM) TOO APPLICATIONS, TOOL ISSUING AND CONTROL AND MAINTENANCE PLANNING HAVE BEEN SELECTED FOR DEVELOPMENT. ANALYSIS OF THE DETAILED FUNCTIONAL REQUIREMENTS WAS INITIATED. REVIEW OF THE APPLICABILITY OF COMMERCIALLY AVAILABLE HARDWARE AND SOFTWARE DUNE. | 200.0 | | | SEP 84 | SEP 84 |
| 0 03 0324 | PROCESS CONTROLS FOR POWDERED METAL WEAPON COMPONENTS A CONTRACT WAS AWARDED TO SPS TECHNOLOGIES, JENKINTOWN, PA FOR \$118,546 ON 5 JAN 84. | 161.0 | 118.5 | 28.5 | SEP 84 | FEB 85 |
| 0 02 0341 | HOLLOW CYLINDER CUT OFF MACHINE STEP TWO OF THE PROCUREMENT ACTION TO PROCURE A HOLLOW CYLINDER CUTOFF MACH WAS UNSUCCESSFUL. IT WAS DECIDED TO COMBINE MONIES REMAINING ON THIS PROJECT WITH 6838354 AND PURCHASE EQUIP TO SATISFY THE NEEDS OF BOTH SCOPES OF WORK. | 655.0 | | 4.2 | SEP 84 | SEP 85 |
| 0 02 0340 | DEBURRING OF BORE EVACUATOR HOLES TWO 120MM TUBES WERE EXPERIMENTALLY ELECTROPOLISHED. THE PUMP THRU PROCESS WAS THE MOST SUCCESSFUL. | 224.0 | | 166.4 | NOV 84 | SEP 84 |

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
SUMMARY PROJECT STATUS REPORT
2ND SEMIANNUAL SUBMISSION CY 83 RCS DRMT-301

| PROJ NO. | TITLE + STATUS | AUTHO- RIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|-----------|--|----------------------------|-------------------------------|---|---|--|
| | | | | | | |
| 6 03 0351 | IMP MANUFACTURE OF QUADRANT FLATS AND MUZZLE BRAKE KEYWAY ENG EVAL COMPLETED AND EQUIP DESIGN BEGUN. | 88.0 | | 21.7 | SEP 84 | SEP 84 |
| 6 03 0352 | SKIVING (METAL SHAVING) GUN TUBE BORES PROCUREMENT ACTION FOR A 'PILOT TEST PROGRAM' HAS BEEN INITIATED. | 120.0 | | 36.0 | SEP 84 | SEP 84 |
| 6 03 0354 | CUTTING OF HOT ROTARY FORGE TUBES TWO STEP PROCUREMENT UNDERWAY. 7 TECH PROPOSALS RECD, OF WHICH 3 WERE ACCEPTABLE. CURRENTLY AWAITING PRICE QUOTES. | 414.0 | | 13.5 | SEP 85 | SEP 85 |
| 6 02 0410 | FLEXIBLE MACHINING SYSTEM - RIA (CAM) THIS PROJECT IS ALMOST COMPLETE. A FMS FEASIBILITY STUDY WAS CONDUCTED. THE STUDY SUPPORTS THE PURPOSE OF A FMS SYSTEM. | 138.0 | 100.0 | 2.0 | SEP 83 | MAY 84 |
| 6 02 0448 | BRAIDED PROCESS FOR BORE EVACUATOR THE ONE BID RECEIVED WAS TOO HIGH. IT WAS DECIDED TO CONDUCT ALL OF THE PROJECT WORK IN-HOUSE. THIS WILL INCLUDE THE BUILDING OF A BRAIDING MACHINE. | 260.0 | | 63.6 | SEP 84 | MAY 85 |



TROOP SUPPORT COMMAND (TROSCOM)

TRUOP SUPPLEMENT DEMAND
CURRENT FUNDING STATUS, 2ND CYCLE

| FISCAL YEAR | NO. OF PROJECTS | AUTHORIZED FUNDS (\$) | CONTRACT FUNDS ALLOCATED (\$) | CONTRACT FUNDS EXPENDED (\$) | PERCENTAGE (%) | IN HOUSE REMAINING (\$) | PERCENTAGE (%) | IN HOUSE REMAINING (\$) | PERCENTAGE (%) |
|-------------|-----------------|-----------------------|-------------------------------|------------------------------|----------------|-------------------------|----------------|-------------------------|----------------|
| 79 | 1 | 295,000 | 280,000 | 280,000 | (100%) | 15,000 | (5%) | 280,000 | (100%) |
| 80 | 0 | 0 | 0 | 0 | (0%) | 0 | (0%) | 0 | (0%) |
| 81 | 1 | 422,000 | 322,000 | 322,000 | (100%) | 100,000 | (24%) | 322,000 | (100%) |
| 82 | 2 | 1,170,000 | 997,300 | 940,900 | (94%) | 172,700 | (15%) | 940,900 | (94%) |
| 83 | 0 | 0 | 0 | 0 | (0%) | 0 | (0%) | 0 | (0%) |
| TOTAL | 4 | 1,887,000 | 1,599,300 | 1,542,900 | (96%) | 247,700 | (13%) | 1,542,900 | (96%) |

AUTHORIZED FUNDING CONTRACT ALLOCATED 85%

IN HOUSE REMAINING 15%

SUMMARY PROJECT STATUS REPORT
MANUFACTURING METHODS AND TECHNOLOGY PROGRAM
2ND SEMIANNUAL SUBMISSION CY 83 RCS DRCMT-301

| PROJ NO. | TITLE + STATUS | AUTHORIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|-----------|--|--------------------|-------------------------|-------------------------------------|----------------------------------|---------------------------------|
| E 79 3532 | MOLTEN SALT LITHIUM-CHLORIDE BATTERY FIVE PROTOTYPE CELLS FOR A 30-CELL, 24KWH, 36V MOLTEN SALT LITHIUM-ALUMINUM/IRON SULFIDE BATTERY HAVE NOW BEEN CYCLED FOR OVER 900 CYCLES. THEY HAD A PROJECTED MEAN CYCLE LIFE GREATER THAN 1000 CYCLES. DRAFT TECHNICAL REPORT PREPARED. | 295.0 | 280.0 | 15.0 | AUG 80 | JUN 84 |
| E 82 3592 | IMPROVED GRAPHITE REINFORCEMENT TEMPERATURE + LINE SPEED WERE VARIED TO OPTIMIZE THE GRAPHITIZATION STEP. BEST STRENGTH AND MODULUS VALUES WERE FOUND AT 2500 DEGREES AT ONE FT PER MIN LINE SPEED. THE CONTRACTOR IS PREPARING THE FINAL TECHNICAL REPORT AFTER PROVIDING 20 LB OF FIBER. | 257.0 | 231.5 | 12.0 | SEP 84 | SEP 84 |
| E 81 3717 | HIGH TEMPERATURE TURBINE NOZZLE FOR 10 KW POWER UNIT ENGINE TESTING OF CERAMIC NOZZLE ASSEMBLIES IS IN PROCESS. APPROXIMATELY 200 HOURS OF OPERATION HAS BEEN ACCOMPLISHED ON EACH MATERIAL TYPE. | 422.0 | 322.0 | 100.0 | APR 82 | JUN 84 |
| E 82 3790 | CUMBAT VEHICLE DEGAUSSING PHASE I (DESIGN) WAS COMPLETED EXCEPT FOR MINOR DRAWING CHANGES. STUDY + VEHICLE SIGNATURE MEASUREMENT WILL BE COMPLETED BY FEB 84. THIS LATTER TASK WILL NOT AFFECT THE FABRICATION PHASE TO BEGIN IN EARLY 84 AND BE OF TWO YEARS DURATION. | 913.0 | 765.8 | 91.4 | AUG 83 | FEB 84 |

APPENDICES

APPENDIX I: COMMAND IDENTIFICATION

APPENDIX: ARMY ACTION COMMAND/ACTIVITY IDENTIFICATION

| <u>Action Command Identifier</u> | <u>Acronym</u> | <u>Command</u> |
|--|------------------|----------------|
| Management Engineering Training Activity | AMETA | D |
| Depot Systems Command | DESCOM | G |
| Electronics R&D Command | ERADCOM | H |
| Test Measurement Diagnostic Equipment Support Group | TMDE | K |
| Army Materials and Mechanics Research Center | AMMRC | M |
| Test & Evaluation Command | TECOM | O |
| Aviation Systems Command | AVSCOM | 1 |
| Communications & Electronics Command | CECOM | 2 |
| Missile Command | MICOM | 3 |
| Tank-Automotive Command | TACOM | 4 |
| Armament, Munitions, & Chemical Command (Munitions) | AMCCOM (Ammo) | 5 |
| Armament, Munitions, & Chemical Command (Weapons) | AMCCOM (Wpns) | 6 |
| Troop Support Command | TROSCOM | 7 |

NOTE: Abbreviation - R&D - Research and Development

APPENDIX II: PROJECT SLIPPAGE STUDY

PROJECT SLIPPAGE STUDY

The purpose of this study is to monitor trends in the timeliness of the MMT Project Execution. Figure 1 is a slippage profile for each command and for the program as a whole. In the past, the slippage profile has tended to be very consistent. The large number of projects in the "No Data" column is due to the recent funding of the FY84 projects for which no status reports or milestone charts were submitted. The number in this column is usually larger during the 2nd period of the year than the 1st since that is the period when most new projects are funded. When combined with the figures from the "0 Mo" column, you have that part of the program for which no slippage problems exist. There is a significant increase in the "No Data" columns for this period (27%) and the "No Data" column for the corresponding 2nd half CY82 period (17%). This is due to the fact that the FY83 program had a severe funding reduction which resulted in fewer projects funded. As a result there were only half as many projects for which status reports were not submitted. The other five columns continue to remain within the ± 3 percentage point range which has consistently been exhibited from reporting period to reporting period. A general improvement in overall slippage is, nonetheless, evident from the fact that the percentage of projects which have slipped more than 1 year is, for the first time under 30%. Over the years, this number has varied between 32% and 37%.

There are two problems that affect accurate project slippage reporting. One problem is delinquent status reports which during the current reporting period, numbered 17. This delinquency results in a larger number of active projects because final status reports are not submitted for those delinquent projects that have in actuality been closed out. These "completed" projects then increase in months of slippage which could account for a larger than actual percentage of projects in the "25+ Mo" columns. Although delinquency has gone down, there continues to be delinquent status report every period so the general consistency still remains. A further decrease in delinquency of project status reports will improve the accuracy of the project slippage profile.

Another problem that affects accurate project slippage reporting is the basis on which final status reports are submitted. Some organizations await financial close-out before submitting final status reports. By doing this, several months might be added to the apparent duration of the project. The general policy has been that final status reports should be submitted when the technical work has been physically completed. If outstanding financial action does not hinder project implementation, then the time required for financial close-out is not meant to be added to an indicator which measures engineering achievement. Continued emphasis on using a consistent basis for project close-out, namely technical completion, will provide a more accurate accounting of the technical life of MMT projects.

PROJECT SLIPPAGE STUDY

| COMMAND | PROJECT SLIPPAGE DISTRIBUTION (PERCENT) | | | | | | | |
|--------------------------|--|------------|---------|-----------|------------|-------------|-------------|-----------|
| | NO. ACTIVE PROJECTS | ML DATA | 0 MO | 1-6 MO | 7-12 ML | 13-18 ML | 19-24 ML | 25+ ML |
| AMETA | 8 | 13 | | 25 | 13 | 25 | | 25 |
| DESCEM | 10 | 20 | 40 | 10 | 10 | | | 20 |
| ERACCEM | 45 | 24 | 18 | 11 | 11 | 4 | 7 | 24 |
| THDE | 4 | 25 | 50 | | | | | 25 |
| AMMRL | 6 | 50 | 17 | | 17 | 17 | | |
| TECEM | 4 | 25 | 75 | | | | | |
| AVSCUM | 54 | 39 | 17 | 13 | 9 | 4 | 9 | 9 |
| CECEM | 14 | 21 | 7 | 14 | 7 | 7 | 29 | 14 |
| RICUM | 31 | 23 | 29 | 16 | 13 | 3 | 3 | 13 |
| TACUM | 58 | 12 | 29 | 12 | 17 | 10 | 5 | 14 |
| AMCCUM (AMMU) | 155 | 32 | 15 | 10 | 14 | 8 | 8 | 14 |
| AMCCUM (WPNS) | 116 | 26 | 21 | 8 | 19 | 9 | 7 | 10 |
| TRUSCEM | 6 | 33 | 17 | | 17 | | | 33 |
| SUMMARY (CARCUM WIDE) | 511 | 27 | 20 | 10 | 14 | 8 | 7 | 14 |
| 2ND CY82 SUMMARY | 521 | 17 | 25 | 12 | 12 | 10 | 7 | 17 |

*FIGURES REFLECT DATA ON THE ACTIVE PROGRAM AS OF 9 MAY 1984.

FIGURE 1 - SLIPPAGE PROFILE

APPENDIX III: USER'S GUIDE

MANUFACTURING METHODS AND TECHNOLOGY PROGRAM SUMMARY PROJECT STATUS REPORT 1ST SEMIANNUAL SUBMISSION CY 83 RUS DRGNT-301

TITLE + STATUS

| PROJECT NO. | TITLE + STATUS | AUTHORIZED (\$000) | CONTRACT VALUES (\$000) | EXPENDED LABOUR AND MATERIAL (\$000) | ORIGINAL PROJECTED COMPLETE DATE | PRESENT PROJECTED COMPLETE DATE |
|--------------|---|--------------------|-------------------------|--------------------------------------|----------------------------------|---------------------------------|
| 5 83 4563 08 | NON-DESTRUCTIVE TESTING OF A PREFORMED SHAPE A DDM HAS BEEN PREPARED AND SENT TO THE DDL KUREY FLATS FACILITY FOR INITIATION OF WORK IN 1ST QTR 1984. | 227.5 | | 5.4 | JUN 85 | JUN 85 |
| 5 83 4563 11 | PROCESS IMPROVE FOR DD PENETRATORS-MG P2 LINEKS SCOPE OF WORK COMPLETED AND PROCUREMENT PACKAGES FORWARDED TO PROCUREMENT WITH ANTICIPATED CONTRACT AWARD DATE OF 1 OCT 1984. | 331.5 | | 5.3 | SEP 85 | JUL 85 |
| 5 83 4563 16 | QUENCH PARAMETERS FOR HEAT TREATING DD A SCOPE OF WORK HAS BEEN COMPLETED AND A PROCUREMENT PACKAGE ASSEMBLED AND FORWARDED TO PROCUREMENT FOR CONTRACT AWARD BY 1 OCT 85. | 427.5 | | 8.5 | JUN 85 | JUL 85 |
| 5 83 4605 | PROPELLANT RED LEPIH CONTROL IN CASAL AIR DRY FUNDS WERE RECEIVED AND OBLIGATED TO KAUFORD AAP. TWO VENDORS WERE CONTACTED TO DISCUSS TYPE OF INSTRUMENTATION AVAILABLE TO DETERMINE PROPELLANT DEPTH. | 575.0 | 461.0 | 10.0 | JUL 84 | JUL 84 |
| 5 82 6099 | ELECTRO-OPTICAL INSPECTION OF ARTILLERY PROJ DPT CAVITY ALL DEFECT DETECTING ELECTRONICS CIRCUITRY HAS BEEN CHECKED FOR PROPER OPERATION AND ADJUSTMENTS OPTIMIZED. THE ONLY CIRCUIT STILL REQUIRING ADJUSTMENT IS ONE THAT INHIBITS FALSE REJECT SIGNALS. | 75.0 | | 30.0 | SEP 83 | SEP 83 |
| 5 79 6095 | BALL PROPELLANT DETERRENT COATING-CAM RELATED DRAFT OF FINAL REPORT BEGUN DURING THE PERIOD. IT WILL BE FINISHED, REVIEWED AND EDITED BY THE END OF THE NEXT REPORTING PERIOD. | 171.0 | 27.5 | 132.4 | NOV 80 | DEC 83 |
| 5 81 6716 | DELV COMP-AID MODEL OF FORMING OPERATIONS FOR ARTILLERY MPTS THIS PROGRAM IS COMPLETE. THE FOUR INDIVIDUAL METALFORMING MODELS WERE CONSOLIDATED INTO AN INTEGRATED SYSTEM. THE SYSTEM IS OPERATIONAL AT LATTELLE AND IS BEING TRANSFERRED TO ARCCUM. | 177.0 | 131.0 | 36.0 | DEC 82 | DEC 82 |

(1) (2) (3)

(5) (6) (7) (8) (9)

(4)

THIS FORM IS USED FOR SUMMARIZING
 THE MMT PROGRAM PROJECTS' STATUS.
 USER'S GUIDE BELOW EXPLAINS THE
 SIGNIFICANCE OF EACH COLUMN HEREIN.

USER'S GUIDE

to

SUMMARY PROJECT STATUS REPORT

COLUMN 1. PROJECT NUMBER

A project identified by the first and last four digits which corresponds to the project title for the life of its execution. However, for accounting and reporting purposes, a project is recognized by the totality of its seven-digit numeric or alphanumeric number. Example:

3 75 6241

Project identifying number, which corresponds to the project title and is designated by action command.

Fiscal year of funding - the only two digits that may vary according to funding frequency (7T for FY transition).

Action command (see list in Appendix I).

COLUMN 2. Subtask identifier, if any.

COLUMN 3. PROJECT TITLE

The title descriptive of project effort.

COLUMN 4. An abstract of project status taken from the Project Status report. Whenever possible, technical accomplishments during the report-

COLUMN 5. AUTHORIZED

The total amount of funds authorized in dollars, to complete the project.

COLUMN 6. CONTRACT VALUES

The portion of authorized funds actually expended or obligated for work performed by private industry.

COLUMN 7. EXPENDED LABOR AND MATERIAL

The portion of authorized funds actually expended in-house, namely within the Government.

COLUMN 8. ORIGINAL PROJECTED COMPLETION DATE

Calendar date clearly given in, or the nearest calendar month and year as could be read from the Milestone Chart of, the very first Project Status Report, RCS DRCMT-301.

COLUMN 9. PRESENT PROJECTED COMPLETION DATE

Calendar date clearly given in, or the nearest calendar month and year as could be read from Milestone Chart of, the latest Project Status Report, RCS DRCMT-301.

APPENDIX IV: ARMY MMT PROGRAM REPRESENTATIVES

ARMY MMT PROGRAM REPRESENTATIVES

HQ, DARCOM

US Army Materiel Development and Readiness Command
ATTN: DRCMT, Mr. F. Michel
5001 Eisenhower Avenue
Alexandria, VA 22333

C: 202 274-8284/8298
AV: 284-8284/8298

AMCCOM

US Army Armament, Munitions & Chemical Command
ATTN: DRSMC-IRI-A (R), Ms. Geri Kopp (Ammo)
ATTN: DRSMC-IRW (R), Mr. Joseph Pohlman (Wpns)
Rock Island Arsenal
Rock Island, IL 61299

C: 309 794-3666/3166
AV: 793-3666/3166

US Army Armament, Munitions & Chemical Command
ATTN: DRSMC-PMP-P (D), Mr. Donald J. Fischer
Dover, NJ 07801

C: 201 724-6092
AV: 880-6092

US Army Armament, Munitions & Chemical Command
Chemical Research and Development Center
ATTN: DRSMC-CLR-I (A), Mr. Joe Abbott
Building E5101
Aberdeen Proving Grounds, MD 21010

C: (301) 724-3418/3586
AV: 584-3418/3586/3010

AMETA

US Army Management Engineering Training Activity
ATTN: DRXOM-SE, Mr. Paul Wagner
Rock Island, IL 61299

C: 309 794-4041
AV: 793-4041

AMMRC

US Army Materials & Mechanics Research Center
ATTN: DRXMR-PP, Mr. John Gassner
Watertown, MA 02172

C: 617 923-5521
AV: 955-5521

AMRDL

US Army Applied Technology Laboratory
Army Research Technology Lab (AVSCOM)
ATTN: DAVDL-ATL-ATS, J. Waller
Fort Eustis, VA 23604

C: 804 878-5921/2401
AV: 927-5921/2401

AVSCOM

US Army Aviation Systems Command
ATTN: DRSAB-PEC, Mr. Fred Reed
4300 Goodfellow Blvd.
St. Louis, MO 63120

C: 314 263-3079/3080
AV: 693-3079/3080

BRDC

US Army Belvoir R&D Center
ATTN: STRBD-HE, Mr. K. K. Harris
Fort Belvoir, VA 22060

C: 703 664-5433
AV: 354-5433

CECOM

US Army Communications Electronics Command C: 201 535-4926
ATTN: DRSEL-POD-P-G, Messr Feddeler/Esposito/Resnic AV: 995-4926

US Army Communications Electronics Command
ATTN: DRSEL-PC-SI-I, Mr. Leon Field C: 201 532-4035
Fort Monmouth, NJ 07703 AV: 992-4995

DARCOM Intern Training Center

ATTN: DRXMC-ITC-E, Mr. Mickey Carter
Red River Army Depot C: 214 838-2001
Texarkana, TX 75507 AV: 829-2001

Department of the Army

ODCSRDA

ATTN: DAMA-PPM-P, LTC S. Marsh
Room 3C400, The Pentagon C: 202 695-0507
Washington, DC 20310 AV: 225-0506

DESCOM

US Army Depot System Command
ATTN: DRSDS-RM-EIT, Mr. Mike Ahearn C: 717 263-6591
Chambersburg, PA 17201 AV: 238-6591

ERADCOM

US Army Electronics R&D Command
ATTN: DRDEL-PO-SP, Mr. Harold Garson C: 202 394-3812
2800 Powder Mill Road AV: 290-3812
Adelphi, MD 20983

HDL

Harry Diamond Laboratories
ATTN: DELHD-PO-P, Mr. Julius Hoke C: 202 394-1551
2800 Powder Mill Road AV: 290-1551
Adelphi, MD 20783

IBEA

US Army Industrial Base Engineering Activity
ATTN: DRXIB-MT, Mr. James Carstens C: 309 794-5113
Rock Island, IL 61299 AV: 793-5113

MICOM

US Army Missile Command
ATTN: DRSMI-RST, Mr. Bobby Park C: 205 876-2604
Redstone Arsenal, AL 35898 AV: 746-2604

MPBMA

US Army Munitions Production Base Modernization Agency
ATTN: SMCPM-PBM-DP, Mr. Joseph Taglairino C: 201 724-6708
Dover, NJ 07801 AV: 880-6708

NRDC

US Army Natick R&D Center
ATTN: DRDNA-EML, Mr. Dan DaLuz C: 617 651-4883/4882
Natick, MA 01760 AV: 256-4883/4882

RIA

Rock Island Arsenal

ATTN: SMCRI-ENM, Mr. J. W. McGarvey
Rock Island, IL 61299

C: 309 794-4142
AV: 793-4142

TACOM

US Army Tank-Automotive Command

ATTN: DRSTA-RCKM, Mr. Donald Cargo
Warren, MI 48090

C: 313 574-6378
AV: 786-6378

TECOM

US Army Test & Evaluation Command

ATTN: DRSTE-AD-M, Mr. John Gehrig
Aberdeen Proving Ground, MD 21005

C: 301 278-3677
AV: 283-3677

TMDE

US Army TMDE Support Group

ATTN: DRXTM-S, Mr. Ken Magmant
Redstone Arsenal, AL 35898

C: 205 876-1850/2575
AV: 746-1850/2575

TROSCOM

US Army Troop Support Command

ATTN: DRSTR-PT, Mr. Richard Green
4300 Goodfellow Blvd.
St. Louis, MO 63120

C: 314 263-3353
AV: 693-3353

WVA

Watervliet Arsenal

ATTN: SMCWV-PPI, Mr. William Garber
Watervliet, NY 12189

C: 518 266-5319
AV: 974-5319

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PROJECT EXECUTION REPORT

DRXIB-MT
DISTRIBUTION:

Department of Defense:

OUSDRE (R&AT), The Pentagon, Attn: Dr. Lloyd L. Lehn (2 cys)

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Cdr, Attn: DRSMC-ASA (R)

Cdr, Attn: DRSMC-CG (R)

Cdr, Attn: DRSMC-IRI-A (R), Ms. Geri Kopp (5 cys)

Cdr, Attn: DRSMC-IRW (R), Mr. Joseph Pohlman (2 cys)

Cdr, Attn: DRSMC-IRW-T (R), Mr. John Kohrell

Cdr, Attn: DRSMC-LEP (R) (5 cys)

Cdr, Attn: DRSMC-QAR-I (D), Mr. Mark Weinberg

Cdr, Attn: DRSMC-PMP-P (D), Mr. Donald J. Fischer (7 cys)

Cdr, Benet Wpns Lab, Attn: DRSMC-LCB-S (D), Dr. F. Heiser

Cdr, Benet Wpns Lab, Attn: DRSMC-LCB-TL, Tech Library

PM, Cannon Artillery Weapons Systems, Attn: DRCPM-CAWS

Cdr, Chemical R&D Center, Attn: DRSMC-CLR-I (A), Mr. Joe Abbott (2 cys)

Cdr, Chemical Systems Lab, Technical Library, Attn: DRSMC-CLY-T (A)

Technical Library, Attn: DRSMC-LEP-L (R) (14 cys), [Defense Technical
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AMMRC:

Dir, Attn: DRXMR, DRXMR-M, DRXMR-PL (1 cy ea)

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